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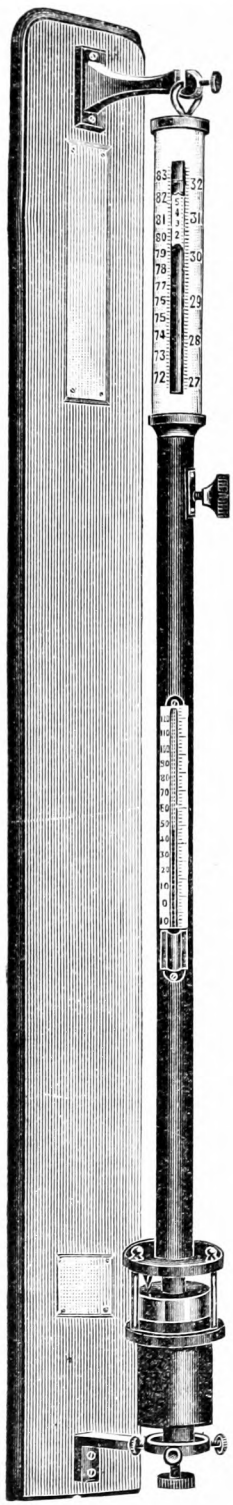

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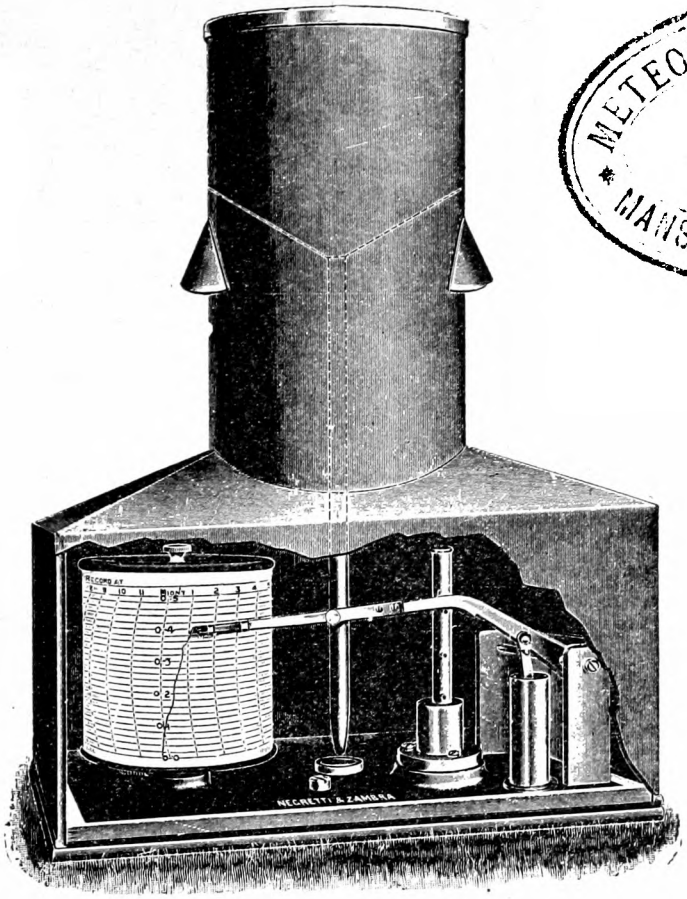

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BRITISH RAINFALL,

1929.

FLOOD HAVOC IN RHONDDA VALLEY,
11TH NOVEMBER, 1929.

Photo by London News Agency Photos., Ltd.]
DAMAGE CAUSED TO THE ROAD AT TREHAFOD, NEAR PONTYPRIDD.

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BRITISH RAINFALL, 1929.

THE SIXTY-NINTH ANNUAL VOLUME OF THE
BRITISH RAINFALL ORGANIZATION.

REPORT ON

THE DISTRIBUTION OF RAIN

IN SPACE AND TIME OVER

THE BRITISH ISLES

DURING THE YEAR

1929

AS RECORDED BY OVER 5,000 OBSERVERS
IN GREAT BRITAIN AND IRELAND.

WITH MAPS AND ILLUSTRATIONS.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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BRITISH RAINFALL, 1929.

PART I.

THE WORK

OF THE

BRITISH RAINFALL ORGANIZATION.

BRITISH RAINFALL, 1929.

PART I.

THE WORK OF THE BRITISH RAINFALL ORGANIZATION.

THE STAFF OF OBSERVERS.

The detailed account of the rainfall of the year 1929 over the British Isles, which is presented in this volume, follows the lines of previous issues. The basis of the discussion is a collection of more than 5,000 returns of rainfall measurements for the year received from all parts of the country. The measurements are generally made every day, but in inaccessible districts they may be made only once a week or even once a month. Only a small number of the observers receive payment from the Meteorological Office; the great majority of the rainfall returns are contributed either by private persons, who measure the rainfall primarily as a matter of private interest, or by public local authorities, and especially the authorities of water undertakings, who find that a knowledge of the rainfall over their gathering grounds is indispensable to them in their work. These two classes of observers forward copies of their observations voluntarily for preservation by the British Rainfall Organization of the Meteorological Office as national records, and for use not only in the preparation of the annual volumes of *British Rainfall*, but also for purposes of study and research. In this way records which are primarily of local interest acquire a national value which was not always realized by those who initiated them. To the numerous voluntary observers who forward their observations the Organization desires to acknowledge its indebtedness: it would be quite impossible to compile such an account as this without their assistance and goodwill.

In order to ensure, so far as possible, that the various records of rainfall summarized in the volume may be comparable with one another, the Organization issues to each observer and to anyone who is interested, a copy of a pamphlet entitled *Rules for Rainfall Observers*. This pamphlet was originally drawn up by the late Mr. G. J. Symons, F.R.S., founder of the Organization, and although it has been extensively revised since his time, yet the fundamental rules laid down by him remain practically unaltered.

The total number of records printed in Part III of this volume is 5,180, an increase of 112 records over last year. The increase in the number of records in *British Rainfall* has now been fairly steady for three years, the net increases in the volumes for 1927, 1928 and 1929 being 97, 98 and 112. It is shown in the table on p. xiii that the number

exceeded 5,000 in both the 1928 and 1929 volumes. The number in 1929 was greater than that of any other year except 1912, 1913, 1914, 1915 and 1916, and the setback occasioned by the war has now definitely been overcome. Moreover, in 1923 it was decided to omit from the General Table returns from check gauges, from self-registering gauges and from gauges exposed on roofs, apart from a few exceptional cases. Consequently some 200 or 300 returns have been omitted from the volume for some such reason.

Many of the losses and gains of records are accounted for by the omission and restoration in a subsequent year of records which temporarily become defective owing to various causes, e.g. a leaky gauge, a faulty exposure, temporary absence of observer, etc. Thus it is possible to include records from Stye Head above Seathwaite in Cumberland which had to be omitted in 1927 and 1928 owing to difficulties in finding an observer. It is now possible to include a record near Edenbridge in Kent, consequent on the gauge being moved to a more suitable site. The record for many years previously has been far too low.

The list also reflects the work done in improving the accuracy of the records both by actually inspecting the stations and by correspondence with the observers. At many stations standard gauges have replaced gauges of older pattern, in others the rims of the funnels have been adjusted to the standard height of 1 foot. In many cases a comparison is given between the catch of the old gauge and of the new gauge. Thus an additional record is printed for Cowroast Lock near Tring from a standard gauge in a site selected near the old gauge by the inspector. The readings are also given for the old gauge, with the rim at 3 ft. 6 ins., which has been in operation for many years. Similarly a record is included from a standard gauge at Hoddington House near Upton Grey. In this case the record from the old gauge is not included, nor was it printed in 1928, because it was definitely in error owing to a leak.

It is satisfactory to note that there were net gains in 1929 in each of the four counties, the numbers being 80 in England, 12 in Wales, etc., 6 in Scotland and 14 in Ireland. The counties with the largest net gains were Kent, South Devon and Cornwall, with 18, 10 and 9 more respectively. The net gains of 6 in Cumberland, 8 in Glamorgan, 6 in Ayrshire and 7 in Antrim are also worthy of comment.

Of the gains in the home counties mention may be made of those from Epsom College, Manston Aerodrome (near Ramsgate) and at Dunstable Cement Works. A new record was started in June, 1929, at Worcester Park, by a member of the Staff of the Meteorological Office. In all, three records for 1929 were received from members of the staff, maintained at their own homes. Two additional records are included in the volume from pumping stations in Kent maintained by the

Metropolitan Water Board. Two additional records are available from the neighbourhood of Tunbridge Wells and three from St. Ives. The three additional records maintained by the Paignton Waterworks on Dartmoor give useful information in an area of few gauges. The changes in the disposition of the gauges maintained by the Bolton Waterworks on the moors some 5 miles north of Bolton materially improves our knowledge of the rainfall of that area. Actually 8 records have dropped out and 8 additional records are included.

Of the gains in Wales reference should be made especially to three records maintained by the Mid-Glamorgan Water Board, the record at Treorchy Pumping Station in the Rhondda Valley, at Mynachlogddu, in one of the wettest parts of Pembrokeshire, and the three records maintained by Mr. R. F. Baker, Engineer of the Birkenhead Waterworks. At the latter group one is at the Filter House at Alwen Reservoir to the north of Carrig-y-Druidion and the other two along the pipe-line carrying water from that reservoir to Birkenhead.

In Scotland the most noteworthy gains occur in Ayrshire and Angus. The former are due mainly to the activities of Mr. W. Dunbar, Burgh Surveyor and Water Engineer of Kilmarnock, who collects the records monthly and sends a summary to all contributing observers. Not only has Mr. Dunbar found a number of existing records which had not been reported to this office previously, but with his wide knowledge of the local inhabitants has been able to arrange for additional stations to be established. Many additional records have been started in 1930, and it is not unlikely that eventually there will be more gauges in operation in Ayrshire than in any other county of Scotland. In 1929 the counties with most records are Argyll, Inverness and Perth, with 72, 70 and 69 respectively, compared with 51 in Ayr. In Angus additional rain-gauges have been established by Mr. George Baxter, Waterworks Engineer of the Dundee Corporation, on the catchment area to the north of Glamis Castle.

In Ireland the most important new records are supplied by the Engineer of the Shannon Power Scheme and by the Engineer of the Belfast Waterworks. In the latter case a number of standard gauges have been set up with the rims of the funnels at one foot above the ground, alongside the old-established gauges.

Among the more serious omissions from the General Table the following stations may be mentioned:—in England, Blakeney in Norfolk, Malham Tarn, in the west of Yorkshire, and the four gauges maintained near Dunford Bridge by the Water Engineer at Dewsbury; in Scotland, Ettrick Manse, Dundee (Balruddery), Loch Quoich (Loan) and Loch Quoich (Kinlochquoich). The latter records stopped owing to the death of the observer, but have now been restarted through the good offices of Captain W. N. McClean, who has devoted considerable attention to the relation of rainfall and run-off in this area.

For assistance in the collection of the rainfall returns for the year we are especially indebted to officials of various local organizations, among whom may be mentioned :—Mr. C. P. Sinclair, of the Hertfordshire Natural History Society and Field Club ; Mr. R. H. Primavesi, of the Northamptonshire Natural History Society ; Mr. A. W. Preston, of the Norfolk Rainfall Association ; Mr. W. G. Willis Watson, of Exeter ; Miss Young, Librarian at the Barnstaple Athenæum ; the Rev. F. P. Synge, of the Mid-Wessex Rainfall Association ; Mr. A. P. Jenkin, of the Cornwall Rainfall Association ; Mr. A. A. Barnes, of the Manchester and Stockport Rainfall Organization ; Mr. A. J. Jenkins, of Jersey ; Miss Cordelia Marshall, of Ambleside ; Mr. W. Dunbar, of Kilmarnock ; and Mr. E. W. M. Murphy, of the Irish Rainfall Association.

British Rainfall, 1929, *compared with* 1928.

Number of Records Published.

	Gain.	Loss.	Difference.	Per cent. change in year.
England	261 ..	181 ..	+ 80 ..	+ 2·2
Wales, etc.	30 ..	18 ..	+ 12 ..	+ 2·6
Scotland	37 ..	31 ..	+ 6 ..	+ 0·8
Ireland	25 ..	11 ..	+ 14 ..	+ 4·5
British Isles	353 ..	241 ..	+112 ..	+ 2·2

Number of Rainfall Records Published in the Volumes of "British Rainfall" for the undermentioned Years.

Years.	England.	Wales, etc.	Scotland.	Ireland.	British Isles.	Change from previous year.	No. of Stations per 100 sq. mi.
1861 ..	333 ..	9 ..	109 ..	20 ..	471 ..	+ 47 ..	0·4
1871 ..	1038 ..	88 ..	311 ..	67 ..	1504 ..	+ 5 ..	1·2
1881 ..	1548 ..	131 ..	313 ..	153 ..	2145 ..	+ 41 ..	1·8
1891 ..	2091 ..	168 ..	359 ..	181 ..	2799 ..	+ 23 ..	2·3
1901 ..	2616 ..	253 ..	442 ..	195 ..	3506 ..	+ 13 ..	2·9
1911 ..	3705 ..	397 ..	701 ..	271 ..	5074 ..	+198 ..	4·2
1914 ..	3962 ..	450 ..	753 ..	288 ..	5453 ..	+ 83 ..	4·5
1919 ..	3419 ..	436 ..	766 ..	277 ..	4898 ..	—101 ..	4·1
1920 ..	3460 ..	453 ..	758 ..	281 ..	4952 ..	+ 54 ..	4·1
1921 ..	3577 ..	446 ..	784 ..	271 ..	5078 ..	+126 ..	4·2
1922 ..	3601 ..	470 ..	785 ..	270 ..	5126 ..	+ 48 ..	4·2
1923 ..	3406 ..	442 ..	754 ..	262 ..	4864 ..	—262 ..	4·0
1924 ..	3438 ..	438 ..	756 ..	248 ..	4880 ..	+ 16 ..	4·0
1925 ..	3437 ..	439 ..	750 ..	259 ..	4885 ..	+ 5 ..	4·0
1926 ..	3418 ..	442 ..	775 ..	238 ..	4873 ..	— 12 ..	4·0
1927 ..	3491 ..	448 ..	786 ..	245 ..	4970 ..	+ 97 ..	4·1
1928 ..	3585 ..	441 ..	791 ..	251 ..	5068 ..	+ 98 ..	4·2
1929 ..	3665 ..	453 ..	797 ..	265 ..	5180 ..	+112 ..	4·2
Difference from 1928 :	+80 ..	+12 ..	+ 6 ..	+14 ..	+112 ..	— ..	+0·11

County.	Records in 1928.	Records Lost.	Records Gained.	Records in 1929.	Records per 100 sq. mi. of area.
ENGLAND.					
London	57	2	3	58	50
Surrey	191	12	16	195	27
Kent	157	1	19	175	11
Sussex	173	8	6	171	12
Hampshire ..	176	17	16	175	11
Berkshire ..	56	2	7	61	·8
Middlesex ..	57	4	8	61	26
Hertfordshire	85	4	6	87	14
Buckinghamshire	45	4	1	42	6
Oxfordshire ..	54	2	7	59	9
Northampton ..	66	5	3	64	6
Huntingdonshire	8	0	0	8	2
Bedfordshire ..	26	2	2	26	6
Cambridgeshire	47	5	0	42	5
Essex	106	5	6	107	7
Suffolk ..	59	1	8	66	4
Norfolk.. ..	83	5	2	80	4
Wiltshire ..	62	5	3	60	4
Dorsetshire ..	84	3	10	91	9
South Devon ..	183	8	18	193	11
North Devon ..	40	1	4	43	5
Cornwall ..	70	3	12	79	6
Somersetshire..	167	12	7	162	10
Gloucestershire	96	4	4	96	8
Herefordshire	49	4	2	47	6
Shropshire ..	48	3	3	48	4
Staffordshire ..	60	2	5	63	5
Worcestershire	61	4	7	64	9
Warwickshire ..	46	1	5	50	6
Leicestershire	35	3	2	34	4
Rutlandshire ..	2	0	0	2	1·3
Lincolnshire ..	59	3	5	61	2
Nottinghamshire	53	1	3	55	7
Derbyshire ..	76	1	5	80	8
Cheshire ..	76	6	9	79	8
South Lancs. ..	123	12	11	122	18
Central Lancs.	76	2	3	77	14
North Lancs. ..	53	2	0	51	8
Yorkshire, W.R.	303	11	11	303	11
Yorkshire, E.R.	27	2	2	27	2
Yorkshire, N.R.	90	3	3	90	4
Durham	47	1	1	47	5
Northumberland	40	2	4	42	2
Cumberland ..	49	0	6	55	4
Westmorland ..	64	3	6	67	9
MONMOUTH, WALES, ETC.					
Monmouth ..	32	2	1	31	6
Glamorgan ..	56	0	8	64	8
Carmarthen ..	17	0	2	19	2
Pembroke ..	12	0	3	15	2
Cardigan ..	20	1	0	19	3
Brecon	77	0	3	80	11
Radnor	23	0	0	23	5
Montgomery ..	25	2	0	23	3
Flint	16	0	2	18	7
Denbigh.. ..	38	1	2	39	6
Merioneth ..	25	4	1	22	3
Carnarvon ..	51	5	6	52	9
Anglesey ..	11	0	1	12	4
Isle of Man ..	9	0	1	10	4
Channel Islands	29	3	0	26	34

County.	Records in 1928.	Records Lost.	Records Gained.	Records in 1929.	Records per 100 sq. mi. of area.
SCOTLAND.					
Wigtown ..	11	0	1	12	2
Kirkcudbright	14	0	0	14	2
Dumfries ..	16	0	1	17	1·6
Roxburgh ..	17	1	0	16	2
Selkirk	6	1	0	5	2
Peebles ..	12	0	1	13	4
Berwick.. ..	13	0	0	13	3
Haddington ..	15	0	0	15	6
Midlothian ..	35	1	1	35	9
Linlithgow ..	19	3	0	16	13
Lanark	42	2	3	43	5
Ayr	45	1	7	51	5
Renfrew ..	42	0	0	42	17
Dumbarton ..	23	0	0	23	9
Stirling.. ..	38	1	2	39	8
Bute	7	0	0	7	3
Argyll	77	6	1	72	2
Clackmannan ..	8	0	0	8	14
Kinross	5	0	0	5	6
Fife	37	2	0	35	7
Perth	66	0	3	69	3
Angus (Forfar)	35	2	4	37	4
Kincardine ..	13	2	2	13	3
Aberdeen ..	37	1	1	37	2
Banff	10	1	1	10	2
Moray (Elgin)..	11	1	1	11	2
Nairn	4	0	2	6	4
Inverness ..	71	2	1	70	2
Ross & Cromarty	27	1	2	28	0·9
Sutherland ..	10	3	1	8	0·4
Caithness ..	10	0	1	11	1·6
Orkney	11	0	0	11	3
Shetland ..	4	0	1	5	0·9
IRELAND.					
Cork	20	0	1	21	0·7
Kerry	13	1	1	13	0·7
Waterford ..	5	1	2	6	0·8
Tipperary ..	14	1	1	14	0·8
Limerick ..	8	1	0	7	0·7
Clare	6	0	0	6	0·5
Wexford ..	7	0	1	8	0·9
Kilkenny ..	3	0	0	3	0·4
Wicklow ..	9	1	0	8	1·0
Carlow	5	0	0	5	1·4
Leix(Queen's Co.)	4	0	0	4	0·6
Offaly(King'sCo.)	8	1	0	7	0·9
Kildare.. ..	2	0	2	4	0·6
Dublin	25	0	1	26	7
Meath	6	0	0	6	0·7
Westmeath ..	8	0	0	8	1·1
Louth	5	1	0	4	1·3
Longford ..	4	0	2	6	1·4
Galway	10	2	0	8	0·3
Roscommon ..	6	2	3	7	0·7
Mayo	8	0	0	8	0·4
Sligo	2	0	0	2	0·3
Leitrim	3	0	0	3	0·5
Cavan	4	0	0	4	0·5
Fermanagh ..	4	0	1	5	0·7
Monaghan ..	1	0	0	1	0·2
Armagh	5	0	1	6	1·2
Down	12	0	0	12	1·2
Antrim	24	0	7	31	6
Londonderry ..	10	0	0	10	1·2
Tyrone	5	0	1	6	0·5
Donegal ..	5	0	1	6	0·3

CHECKING OF RECORDS.—Every record of rainfall which is published in Part III of this volume goes through a process of examination before it is included in the table. This consists in the plotting of the monthly and annual totals of rainfall and of the annual numbers of rain days and wet days on large scale maps, of which all except the map of rain days are reproduced in the volume on much reduced scales. Isohyetal lines or lines of equal numbers of rain and wet days, as the case may be, are then drawn on the maps. As a rule, the data are seen to be arranged regularly, in a manner depending on known principles, as discussed in an article by Dr. Glasspoole, in Part IV of *British Rainfall*, 1928, but sometimes certain values are inconsistent with those reported from neighbouring stations. The inconsistency may occur only in a single month, or it may extend over the whole year. The return in question is then examined in detail and compared with returns from neighbouring stations, when a probable explanation of the discrepancy often suggests itself. A slip in arithmetic may have occurred; a decimal point may have been misplaced; observations may have been missed during a holiday; a deputy observer not quite familiar with the work may have blundered; the amounts may be entered to the wrong day; actual mistakes may have been made in measurement, especially in measurements exceeding half-an-inch; the gauge may be unsound, giving rise sometimes to low, sometimes to high measurements; the gauge may have become sheltered by the growth of trees, bushes, or vegetables; the site of the gauge may be unsuitable. The possibilities of mistake are numerous—apparently endless—and often unexpected. Thus, one observer wrote about his 1929 return. "I regret that the rainfall for the latter half of August is not available, as I was away from home and my gardener who used to see me remove the water from the gauge daily, thought he would be pleasing me by doing the same in my absence; unfortunately he poured it all away!" A communication is then sent to the observer, setting out the circumstances and the difficulty, and, if possible, suggesting a probable explanation. Generally a satisfactory result ensues, although in many cases the real values for the doubtful entries must remain unknown, and only estimated values can be substituted. In certain cases returns are scrutinized and checked fully before the totals are plotted on the maps. It is thought that very few important mistakes are passed over.

Another opportunity for critically examining the returns is afforded by the preparation of the Rainfall Survey. This examination is more exacting than that undertaken year by year, since the values are plotted on a map of a larger scale and since computed averages can be compared for stations in the same locality, which were not in operation at the same time. Much has been done in improving the accuracy of the future records by correspondence with those observers whose values have appeared inconsistent on the survey maps. In some cases gauges

of standard patterns have been lent, and comparisons made with gauges which have been thought to be giving defective records.

During the course of the year many observers have been written to where the gauge was not exposed with the rim at the standard height of one foot above the ground. In certain cases where the record has been in operation for many years, a second gauge exposed in the proper manner has been read concurrently for a year or so, and the results of the two gauges compared before the change to the standard exposure has been made.

AVERAGES PRINTED IN THE GENERAL TABLE OF BRITISH RAINFALL.—Since 1926 a column in the General Table has been devoted to the average annual rainfall at the various stations, and year by year additional values have been given. This information is supplied mainly by the Rainfall Survey which is being carried out for certain counties year by year. Mr. H. P. Cornish of Keswick has very kindly supplied additional values and we have to express our indebtedness to him for his co-operation in this connexion.

INVESTIGATIONS.—Four articles are printed in Part IV of this volume; one is contributed by Mr. F. Hudleston, M.Inst.C.E., of Hutton John, Penrith; this continues his account of the experiments which he is making at Hutton John into the effects on rainfall measurements of unorthodox exposures, and of the steps which can be taken to mitigate those effects. His previous contributions appeared in *British Rainfall*, 1926, 1927 and 1928. Mr. Hudleston does not refer to the time and trouble which he and members of his family have personally expended on this investigation. The important results are obtained in wet, windy weather, and after or during a fall of snow, just when conditions are least suited to the comfortable execution of the measurements. Observers who measure rainfall in exposed localities and especially water engineers, are invited to peruse his article with attention, for it contains much information that can be often applied with advantage to the improvement of the sites of rain-gauges in exposed localities.

Dr. J. Glasspoole contributes two articles. The first deals with some of the more outstanding features of the rainfall of 1929. The year was noteworthy on account of the fact that the remarkable general deficiency of rainfall during the first nine months was counterbalanced by the equally remarkable excessive falls of the last three months. Dr. Glasspoole's second article deals with the rainfall of Pembrokeshire and accompanies a new map showing the mean annual precipitation in that county. The remaining article which gives the results of some experiments on rain-gauges with funnels painted black and white,

confirms our belief that a plain, unpainted, copper gauge is, on the whole, the best instrument to use for the measurement of rainfall.

In the technical press dealing with water engineering, there have been several papers during the year by Dr. J. Glasspoole in which the vast amount of data held by the British Rainfall Organization is used. Among these may be mentioned :—

(*a*) Average and Extreme Seasonal Rainfall over the British Isles. London, Trans. Inst. Water Engin., 33, 1928, pp. 51—69.

(*b*) Extremes of Rainfall over the British Isles. Off. Circular. Brit. Waterworks Ass., No. 81, 1929.

(*c*) The Areas covered by Intense and Widespread Falls of Rain. London, Proc. Inst. Civil Engin. 229, 1929, Pt. 1.

INSPECTIONS.—During the year ended 31st March, 1930, some 250 rainfall stations were inspected. These included a number of stations in the gathering grounds of the Metropolitan Water Board, and of the Tees Valley, Portsmouth, Irvine and District, Kilmarnock, Edinburgh, North Berwick, Nuneaton and Rhondda water undertakings. Inspections were carried out in the south of Scotland in connection with the Rainfall Survey. Many stations were inspected and new stations started in the Tees Valley, so that the rainfall could be defined with as great precision as possible during the period covered by the Biological and Chemical Survey of the River Tees.

Among the many observers who have facilitated the inspections of rain-gauges in their areas, special reference should be made to Mr. G. R. Collinson, Engineer and Manager of the Tees Valley Water Board; Mr. W. Dunbar, Burgh Surveyor, Kilmarnock ; Messrs. Leshe and Reid, Engineers to the Edinburgh Corporation ; Mr. Octavious Thomas, Engineer to the Rhondda Urban District Council ; and Mr. F. Hudleston of Hutton John, Penrith. The number of gauges which can be seen in a day is materially increased by the assistance of someone familiar with the district, and this co-operation is consequently especially worthy of acknowledgment.

The inspection of the rainfall stations reporting to this Office is regarded as one of the most important aspects of our work and it is hoped to increase the number of stations inspected in future years.

SURVEY MAPS.—The work on the detailed average annual rainfall map of the British Isles on the scale of two miles to the inch, for the period 1881–1915, has been continued. The map has been extended to cover the counties of Wiltshire, Devon, Somerset, Warwick, Yorkshire N.R., Durham, Northumberland, Wigtown, Kirkcudbright, Roxburgh, Selkirk, Berwick, Haddington, Ayr, Fife, Angus, Kincardine,

Aberdeen, Banff, Moray, Nairn, Sutherland, Caithness and the islands of Mull, Islay and Arran, while substantial progress has been made with data for stations in Gloucester, Leicester, Rutland, Derby, Yorkshire W.R., Cumberland and Westmorland. The Survey has now been completed for the whole of Wales and about half of England and Scotland. When the work now in hand is completed the whole of England and Wales will have been covered either by the present Survey or by Dr. Mill's earlier series of county maps published by the Geological Survey. In addition it may be mentioned that considerable portions of Scotland and Ireland are covered by maps prepared as evidence in parliamentary proceedings connected with water supply. During the current year the Survey has made good progress and we are within a measurable distance of attaining its object, *viz.*, the mapping of the whole of the British Isles on the scale of two miles to the inch.

INQUIRIES.—A large number of inquiries regarding the rainfall of various parts of the country was dealt with. Among the more important of these, the following may be mentioned :—

Reports on the rainfall of certain gathering grounds were prepared in connexion with Water Bills, etc., concerned with the water supply for Portsmouth, Rochdale, Dewsbury and Heckmondwicke, Stockport and Kingsbridge and Salcombe.

A report was supplied to the Ministry of Transport as to the rainfall of various parts of the area bordering on the Caledonian Canal.

A report was supplied to the Under Secretary of State for Scotland regarding the distribution and incidence of the rainfall in the Western Isles of Scotland.

Data were supplied to the Middlesex County Council in connexion with flooding.

A map of the average annual rainfall over the county was supplied to the Dumbartonshire Council.

Further rainfall data were supplied to the Ministry of Health in connexion with a report on Compensation Water and in connexion with the preparation of local regulations governing the dimensions of sewers to carry flood water.

OBITUARY.—During the twelve months 1st July, 1929, to 30th June, 1930, reports have been received of the deaths of 61 observers who have contributed to volumes of *British Rainfall*. Of these nineteen have kept rainfall records, or been associated with relatives who have kept records for more than 30 years. A list of these is given below. In most cases the records have been maintained throughout by the same observer.

Name.	Last place of observation.	No. of years' records.
J. S. Amery	Ashburton, Devon	60
A. H. Buston	Chatteris, Cambs.	56
J. Moffatt	Nutfield Priory Gardens, Surrey	50
J. Riley	Ledbury, Hereford	47
F. Wilkin	Wadhurst, Sussex	47
J. Horsley	Stretham, Cambs.	46
Dr. T. Cambert Hall	Dilwyn, Hereford	42
Lt.-Col. M. Morgan	Mountain Ash, Glam.	41
A. Malden	Burgess Hill, Sussex	38
G. Weller	Amersham, Bucks.	37
H. A. Wadworth	Brinton Court, Hereford ..	37
Miss Arkwright	Grange-over-Sand, Lancashire	35
C. Barran	Totnes, Devon	35
Canon J. A. Lawrence	Dilham, Norfolk	35
Very Rev. R. S. Craig	Tullamore, King's County ..	33
N. W. Wortley	Uppingham, Rutland	31
J. A. Campbell	Kilmelfort, Argyll	30
Miss Hames	Crowborough, Sussex	30
Capt. F. J. Mackenzie-Grieve ..	Bishop's Waltham, Hants. ..	30

BRITISH RAINFALL, 1929

PART II

RAINFALL AND METEOROLOGY

OF

1929

1. A BRIEF SUMMARY OF THE RAINFALL OF THE YEAR, 1929.

The annual totals of rainfall closely approximated to the average in most parts of the British Isles. They were rather smaller than usual in the east of the United Kingdom, and slightly in excess of the average in the west, and more especially in Ireland. This type of rainfall distribution is associated with an increased pressure gradient between the south-east of England and north-west of Scotland.

For the British Isles, as a whole, the rainfall of 1929 was close to the average, being only one per cent. in excess. The rainfall has been in excess of the average in each of the last seven years, although in 1929 the excess was smaller than in any of the preceding six years. The table below gives the general values over the British Isles as a whole and for the countries separately since the famous dry year 1921. It emphasizes the unusual wetness of recent years and by comparison the relative dryness of 1929.

Annual Rainfall as per cent. of Average, 1881–1915.

	1922	1923	1924	1925	1926	1927	1928	1929
	%	%	%	%	%	%	%	%
England and Wales	105	113	120	106	102	123	115	100
Scotland ..	94	120	105	100	111	114	123	101
Ireland ..	92	110	122	99	100	108	126	106
British Isles	100	114	117	104	103	118	118	101

It will be recalled that since about 1907 wet years have predominated. Initially the excesses were contributed by wet winters, but in more recent years the summers were particularly wet, while in 1928 and 1929 there was a reversion to the earlier type. The summer of 1929 over England and Wales was drier than any other summer there, with the one exception of that of 1921, for at least 25 years. Moreover, there was but little more than half as much rain in the summer of 1929 as in that of either 1927 or 1924. The rainfall of the summer of 1929 in Scotland was rather above the average. This was the eighth consecutive wet summer there. Recent winters in Ireland are even more striking, for during the last 18 years there has been an excess in nearly every winter.

While the annual totals of rainfall everywhere approximated fairly closely to the average, the incidence of the rainfall throughout the year was unprecedented. The rainfall of the first nine months of the year, over the British Isles as a whole, was less than that of any other January to September in the last 60 years. On the other hand

the rainfall of the last three months was greater than that of any other October to December. The general deficiency over the British Isles at the end of September amounted to 7·5 inches. This was more than counterbalanced by the excessive rain of the last three months, which actually exceeded that of the whole of the first nine months by ·4 inch. This compensation which Nature seems to provide, sooner or later, recalls the rainfall of 1879 and 1880, although then the contrast was not quite so striking. On that occasion the sequence was reversed, for the remarkably dry winter of 1879 to 1880, followed one of the wettest summers on record.

The outstanding months were March, November and December. March 1929, with a general rainfall of ·6 inch, ranks with February 1891 and June 1925 as the driest months in the last 60 years. November was easily the wettest November over the British Isles as a whole, while in parts of the south-west of England the month was the wettest of any name in the last 60 years. The fall of 8·5 inches, computed for December 1929, has been exceeded in only two months in a similar period, viz., in December 1876 and December 1914.

The numbers of rain-days and wet-days, recorded at the various stations in the British Isles, especially in the south-east of England, were more striking than the annual rainfall amounts. Over the British Isles generally, fewer rain-days were recorded in only six out of the last 49 years, *viz.*, 1921, 1901, 1899, 1895, 1893 and 1887. Over England and Wales generally there were 23 fewer rain-days than usual.

One of the remarkable features of the incidence of the rainfall during 1929 was the widespread distribution of droughts and dry spells (i.e., 15 days or more without a wet-day). At least one dry spell was recorded during the year at nearly every station in the British Isles, while about one-third of the whole area recorded three or more dry spells. Rain spells were also experienced during the year nearly everywhere in the British Isles. They were, however, less frequent than usual in many districts, although the total rainfall during these rain spells was greater than usual.

As would be expected from the fact that the rainfall of the summer over England and Wales was appreciably less than the average, the number of heavy falls in short periods during the year was less than usual. As many as 12 out of the 31 intense falls on record for the year occurred on July 20th, over a belt stretching from the New Forest to the north of London.

The number of falls of 2·5 inches or more for the rainfall day was much greater than usual. These falls occurred mainly in October, November and December, and were unusually widespread on October 5th, November 11th, 18th and 19th. The fall of 8·31 in. recorded in the Rhondda Valley on November 11th has been exceeded on only two previous rain-days, *viz.*, June 28th, 1917, and August 18th, 1924.

A photograph showing some of the damage caused by the heavy rain is given as the frontispiece to this volume, while details of the storm are given in Section 7. The fall on November 11th can be regarded as a record " winter " rain and also a record for " wet " stations. Flooding also occurred in the Rhondda Valley a week later, when nearly six inches fell in the upper part in the 24 hours, ending 16h. on the 19th and again, although less severely, on November 25th and December 2nd and 9th. The total rainfall for the 39 days, November 5th to December 13th, at Pont Lluest Wen Reservoir reached the surprising total of 43·8 inches, or practically half the average annual rainfall at that station.

2. THE DISTRIBUTION OF RAINFALL IN TIME.
THE NUMBER OF RAIN-DAYS AND WET-DAYS IN 1929.

The following definitions have been used in *British Rainfall* in order to obtain a homogeneous series of statistics :—

A *rain-day* is a period of 24 hours, commencing normally at 9 a.m. on which ·01 inch, or 0·2 mm. or more of rain is recorded.

A *wet-day* is a period of 24 hours, commencing normally at 9 a.m. on which ·04 inch, or 1·0 mm. or more of rain is recorded.

The former definition dates from the year 1865, the latter was adopted only 12 years ago. Each of the terms " rain-day " and " wet-day " is open to criticism, the latter particularly so, since it has a different meaning in ordinary use. It must, therefore, be understood that whenever these terms are used in this publication the meanings set out above are always to be attached to them.

For reasons which are set out in detail in the article entitled " The distribution over the British Isles in time and space of the annual number of days with rain," in *British Rainfall*, 1926, there is frequently a lack of harmony in the annual values of adjacent stations. In fact, the observed differences are sometimes so much greater than that of any other climatic factor, that there is little doubt that some of the individual values are incorrect. Statistics of wet-days were found to be much more consistent. It was this reason, coupled with the fact that similar data are published for certain other countries of Europe, which led to the introduction of statistics of wet-days.

Latterly, however, attention has been re-directed to the improvement of the statistics of rain-days. The Meteorological Office has standardised a new taper measure and new regulations for reporting small quantities of rain have been brought into use.

On the taper measure there is a graduation marked ·005; this graduation is to show the limit between the amounts which count as ·01 inch, and those which are mere " traces."

Number of "Wet Days" in 1929.

The circumstances in which the entry "trace" or "tr" is to be made in the daily register are as follows :—

(*a*) When there is less than ·005 in. of water in the gauge and the observer knows that this is not the result of a drop or two draining from the sides of the can after emptying the rain-water out of it at a previous time of observation, i.e., the observer must be reasonably certain that there has actually been precipitation since the preceding measurement. If the observer knows that the precipitation has been in the form of dew or wet fog this may be noted.

(*b*) The observer knows definitely *from his own observation* that some rain (or other form of precipitation such as snow, hail, sleet or drizzle) has fallen since the preceding

observation, and yet finds no water in the gauge. This happens sometimes especially in dry, warm weather, without the gauge being even damp, the small amount of rain having evaporated before it got into the receiving can.

Observers who distinguish carefully between measurements of "trace" and of ·01 inch, in the manner set out above, will feel confident that their statistics of rain-days are correct. If such a precise distinction is not made, doubt may attach to the statistics of rain-days. The desirability of using taper-measures is therefore evident.

Information as to the number of rain-days and wet-days during the year is set out in this volume in various forms. As usual, the General Table of rainfall in Part III of this volume shows the number of rain-days and wet-days in 1929 as reported from each station at which daily observations were made. The number of wet-days have been plotted on a large map of which the illustration on p. 6 is a reduced copy. The distribution of the numbers is shown on the map in the usual manner.

In order to study the distribution of rain-days and wet-days throughout the year, 100 stations have been selected to represent as uniformly as possible the conditions over the whole of the British Isles. The stations are the same as those used last year except that Victoria Lodge (Talla Water) replaces Ettrick Manse in Selkirk and Mallow (Longueville) replaces Killarney (District Asylum). The numbers of rain days and wet days for each month, as well as for the whole year, have been extracted from the returns from the 100 stations and printed in Table V. Monthly general numbers (for England and Wales, Scotland, Ireland and for the British Isles) have been worked from these data and they are shown in the table in heavy type. The annual mean values for 1929 are shown again in Tables I and III and the monthly mean values for 1929 in Tables II and IV, where in each case they can be readily compared with similar values for the intervening years from 1917 ; and with the averages.

The most striking feature of any map of the annual number of wet-days is the similarity in the distribution with that in other years. The similiarity in the case of maps of wet-days is even more striking than with maps of annual rainfall, for the variability from year to year at individual stations is much smaller in the former case. Although 1929 was noteworthy for the small number of wet-days the general distribution was very similar even to that of 1923, the year of most wet-days probably since before 1881. In 1923 the number of wet-days varies from about 110 at a few stations between Margate and the Wash to rather more than 250 in parts of the west of Scotland and in the mountains of Connemara and Donegal. In 1929 there was a similar steady increase in the number of wet-days from the south-east to north-west of the British Isles. The range in 1929 was slightly less than in 1923, the actual values varying from about 85 at a few stations between

Margate and the Wash to rather more than 220 in parts of the west of Scotland and in the mountains of Connemara.

Stations with less than 100 wet-days during the year were confined almost entirely to the south-east of England. This large area between the Wash and the Thames Estuary, stretching as far inland as Worcester and Salisbury, is particularly noteworthy. The only other part of the country with less than 100 wet-days during the year was the neighbourhood of Doncaster.

The general values, given in Table III, indicate that the frequency of wet-days over England and Wales was 22 less than the average and only 11 more than in the year 1921, which was the driest year in England and Wales at least since 1854. The number for Scotland was 12 less than the average and the smallest in the series back to 1917. The number for Ireland was 13 below the average and for the British Isles, as a whole, 17 below the average. It should be emphasized that in the case of wet-days comparable statistics are only available back to 1917, and the averages used for comparison are for the period 1917 to 1929, which includes mainly wet years. The averages are therefore greater than they would have been if statistics covering the standard period 1881 to 1915 were available. This fact is brought out by Table I, where 9 out of the last 13 years gave rain-days appreciably in excess of the average for the period 1881 to 1915.

The number of wet-days over the British Isles in each month is given in Table IV. There were only 3 wet-days in March and 8 in April and September. November and December had the greatest number of wet-days with 20 and 23 respectively. March, 1929, ranks with June, 1925, as the month of fewest wet-days in the series back to 1917. On the other hand, December, 1929, ranks with January, 1928, as the month of the greatest number of wet-days. The number in November, 1929, was more than in any other November. During the first 4 months of the year there were only 30 wet-days or 24 less than the average,while during the last 3 months there were twice as many, viz., 60, or 13 more than the average of that period.

In dealing with the general numbers of rain-days, given in Tables I and II, it is possible to compare the values for 1929 with computed averages for the 35 years, 1881 to 1915. It is shown in Table I that over the British Isles as a whole there were 192 rain-days or 12 less than the average number.

Statistics of rain-days have been computed back to 1881 (see *British Rainfall*, 1926, p. 268) and these indicate that fewer rain-days occurred over the British Isles in only 6 out of the last 49 years, *viz.*, 1921, 1901, 1899, 1895, 1893, and 1887, when the general numbers of rain-days were 190, 187, 189, 190, 191 and 174 respectively. In both Scotland and Ireland the number of rain-days in 1929 was close to the average, but in England and Wales there were 23 fewer than usual. The only other years, in the series back to 1881, with fewer rain-days over England and Wales than 1929, were 1921 and 1887 with 158 and 157 respectively.

There was less than the average number of rain-days in 1929 in each of the first 5 months, as well as in July and September. In March there were 13 rain-days fewer than usual, and the month ranks with June, 1925, as the month of fewest rain-days over the country generally back to 1917. It is not possible to give statistics of the number of rain-days during the individual months of 1887, or during February, 1891, but as March, 1929, ranks with February, 1891, and June, 1925, as the driest months over the British Isles generally, in the last 60 years, it is reasonable to suppose that fewer rain-days than during March, 1929, or June, 1925, have not occurred in any month of the last 60 years. The total number of rain-days during the first 5 months of the year was 60 or 24 less than the average and this is one of the most striking features of the incidence of rainfall during 1929. The number of rain-days was in excess of the average in each of the last 3 months of the year, although the excess was noteworthy only in December, when there were 26 or 6 more than usual. For the whole period the number of rain-days was 71 or 13 above the average. The number of rain-days during the summer six months April to September, was not remarkable being but 4 less than the average. It will be recalled that in 1928, when during the whole year there was a marked excess of rain-days, the number occurring during the summer was also not remarkable, being exactly the average number of 92.

During the year the mean number of rain-days per month was 16 or 1 less than the average. Of these, 12 received sufficient rain to rank as wet-days. There were 5 more rain-days than wet-days in January, April, August and October, and only 2 more in March.

Table 1 shows that 1929 was the first year with a deficiency of rain-days since 1921. The excess of rain-days in earlier years was so remarkable that during the 11 years 1918 to 1929, there was an accumulation of 127 rain-days in excess of the average, or as many rain-days as usually occurs in $7\frac{1}{2}$ months.

There is no instance in the 100 stations of Table V of a month without a single rain-day, although a few isolated stations near Banbury, in the Lea Valley and in the west of Scotland experienced a rainless March (see rainfall map for March, Section 8). As many as 9 stations in England and Wales recorded no " wet-days " in March. In England and Wales only 2 out of the 47 stations recorded as many as 6 wet-days, during March. In September many stations in the south of England recorded only 2 wet-days, while there was only 1 wet-day at Great Wakering (near Shoeburyness) and at Dorchester. There was rain on every day of December at 4 stations: Barnstaple, Stoneykirk in Wigtownshire, Islay (Eallabus), and Milford in Co. Donegal.

The total number of rain-days during 1929 varied from rather less than 125 in the neighbourhood of the Thames Estuary to rather more than 250 in Connemara and the north-west of Scotland. In Table V the range is from 120 at Great Wakering (near Shoeburyness) and 121

at Cambridge, to 270 at Loch More in Sutherlandshire, 263 at Stornaway and 262 at Mull (Gruline). Over a large part of the south-east of England, roughly to the south-east of a line from Lyme Regis to Spurn Head, the number of rain-days was less than 150 and over most of this area there were between 130 and 140 rain-days

Table I.—*Annual General Number of Rain-days (Days with ·01 in. or more) in* 1917-1929, *compared with Average,* 1881-1915 †.

Year.	England and Wales. Average 188.			Scotland. Average 217.			Ireland. Average 220.			British Isles. Average 204.		
	Rain Days.	Diff from Aver.	Per cent. of Aver.	Rain Days.	Diff. from Aver.	Per cent. of Aver.	Rain Days.	Diff. from Aver.	Per cent. of Aver.	Rain Days.	Diff. from Aver.	Per cent. of Aver.
1917	185	− 3	98	217	0	100	224	+ 4	102	203	− 1	100
1918	200	+ 12	106	226	+ 9	104	227	+ 7	103	214	+ 10	105
1919	191	+ 3	102	214	− 3	99	213	− 7	97	203	− 1	100
1920	203	+ 15	108	232	+ 15	107	243	+ 23	110	220	+ 16	108
1921	158	− 30	84	224	+ 7	103	217	− 3	99	190	− 14	93
1922	196	+ 8	104	234	+ 17	108	226	+ 6	103	214	+ 10	105
1923	216	+ 28	115	257	+ 40	118	253	+ 33	115	236	+ 32	116
1924	202	+ 14	107	237	+ 20	109	248	+ 28	113	223	+ 19	109
1925	192	+ 4	102	231	+ 14	106	230	+ 10	105	212	+ 8	104
1926	192	+ 4	102	234	+ 17	108	226	+ 6	103	211	+ 7	103
1927	208	+ 20	111	233	+ 16	107	238	+ 18	108	223	+ 19	109
1928	204	+ 16	109	240	+ 23	111	247	+ 27	112	225	+ 21	110
1929	165	− 23	88	217	0	100	218	− 2	99	192	− 12	94

† The averages for the period 1881–1915 are based on the records from about 100 stations distributed as evenly as possible over the country. The selection of stations is described in an article in *British Rainfall*, 1926, p. 267, and the general number of rain-days in each year from 1881 will be found in Table I of that article.

Table II.—*Monthly General Number of Rain-days (days with ·01 in. or more) in* 1917 *to* 1929, *British Isles, with Average,* 1881-1915 ‡.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1917 ...	15	12	19	16	13	14	12	23	17	25	20	17	203
1918 ...	20	20	12	12	13	13	19	17	25	22	16	25	214
1919 ...	23	12	20	18	11	16	11	16	16	14	20	26	203
1920 ...	24	17	21	23	19	13	24	13	17	13	16	20	220
1921 ...	25	9	23	11	17	7	12	20	11	16	16	23	190
1922 ...	24	20	17	18	13	15	21	19	17	12	16	22	214
1923 ...	22	24	15	17	19	13	18	21	20	25	19	23	236
1924 ...	22	15	10	16	23	17	20	23	20	19	16	22	223
1925 ...	18	23	16	19	23	5	16	17	21	19	15	20	212
1926 ...	24	20	14	17	19	14	14	17	16	17	24	15	211
1927 ...	23	16	21	18	12	20	18	21	22	17	21	14	223
1928 ...	27	17	21	16	11	20	14	19	12	23	23	22	225
1929 ...	14	14	5	13	14	15	14	21	11	22	23	26	192
Average	19	17	18	15	15	14	16	17	15	19	19	20	204

‡ The average general values for England and Wales, Scotland and Ireland separately are given in *British Rainfall*, 1927, p. 7, and are discussed in an article on *The Distribution over the British Isles of the average number of days with rain during each month of the year.*—Q.J.R. Meteor. Soc. Vol. 54, 1928.

Table III.—*Annual General Number of Wet-days (Days with ·04 in. or more) in 1917 to 1929, with Average.*

	England and Wales.	Scotland.	Ireland.	British Isles.
1917.. ..	134	174	176	155
1918.. ..	150	182	188	168
1919.. ..	143	172	171	158
1920.. ..	151	185	197	171
1921.. ..	110	177	166	142
1922.. ..	146	181	178	163
1923.. ..	159	206	198	182
1924.. ..	154	184	199	173
1925.. ..	143	179	180	162
1926.. ..	141	184	173	161
1927.. ..	156	184	185	171
1928.. ..	151	193	200	175
1929.. ..	121	170	170	147
Average 1917-29	143	182	183	164

Table IV.—*Monthly General Number of Wet-days (Days with ·04 in. or more) in 1917 to 1929, British Isles, with Average.*

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1917 ..	11	8	14	13	10	10	9	20	12	21	15	12	155
1918 ..	15	17	9	9	10	9	15	12	22	16	13	21	168
1919 ..	19	9	15	14	8	12	8	12	13	11	15	22	158
1920 ..	20	13	17	19	15	10	19	9	13	9	12	15	171
1921 ..	20	5	17	8	13	5	10	15	7	12	12	18	142
1922 ..	20	16	13	14	9	11	16	15	13	8	11	17	163
1923 ..	15	20	11	13	14	8	13	17	16	21	16	18	182
1924 ..	17	9	7	12	19	13	17	18	16	15	12	18	173
1925 ..	14	19	11	15	18	3	12	13	15	14	12	16	162
1926 ..	20	15	9	12	15	11	11	13	12	14	19	10	161
1927 ..	19	13	17	13	8	16	13	17	17	13	15	10	171
1928 ..	23	13	16	11	8	16	10	15	9	19	18	17	175
1929 ..	9	10	3	8	11	11	11	16	8	17	20	23	147
Average 1917-29.	17	13	12	12	12	10	13	15	13	15	15	17	164

Table V.—*Number of "Rain-days" (·01 in. or more) and of "Wet-days" (·04 in. or more) in 1929.*

County and River Division.	Station.	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sep.		Oct.		Nov.		Dec.		Year.		Total Rainfall.
ENGLAND AND WALES.																												in.
London 2	St. Pancras (Camden Square)	12	7	7	5	1	0	11	8	11	8	12	8	10	7	10	9	2	2	14	9	19	16	25	20	134	99	22·55
Kent 2	Lympne Aerodrome	16	7	8	5	6	1	10	7	8	7	11	8	8	7	9	5	5	2	15	13	20	19	25	21	141	102	27·10
Sussex 3	Patcham (Brighton W.W.) ..	14	7	7	5	3	1	11	5	11	10	13	11	11	9	12	8	4	3	16	13	20	19	26	22	148	113	35·11
Hampshire .1	Ventnor (Royal National Hos.)	14	8	8	5	3	3	9	5	13	9	12	9	6	4	14	7	5	3	20	18	21	16	27	22	152	109	31·30
Hampshire .7	Selborne (The Wakes)	13	8	7	3	2	2	9	6	13	8	15	10	10	9	12	7	3	2	15	13	20	18	25	23	144	109	38·56
Berkshire ..5	Upton (Manor House)	14	5	11	5	4	1	12	7	9	8	10	7	11	8	11	5	3	3	15	11	18	16	24	20	142	96	21·92
Northants..4	Wellingborough (Swanspool)	15	10	10	4	3	0	15	9	13	6	12	6	10	8	14	6	4	2	16	10	20	16	23	18	155	95	21·05
Northants..4	Eye (Northolm).....	15	8	7	3	2	1	17	5	10	4	11	9	11	7	15	7	4	3	12	10	19	14	22	17	145	88	17·97
Cambridge .2	Cambridge (Botanic Gardens)	14	9	5	4	3	0	14	10	9	9	8	4	8	6	8	3	2	2	12	10	18	17	20	18	121	92	19·58
Essex.....3	Great Wakering.....	14	7	5	2	1	0	12	7	8	3	8	4	8	6	7	6	2	1	13	11	18	15	24	19	120	81	16·01
Suffolk 2	Haughley (Haughley House).	19	11	8	2	3	0	12	6	8	8	8	3	10	8	10	6	6	4	13	11	19	15	17	16	133	90	17·99
Norfolk 1	Gorleston	17	9	8	3	7	0	12	6	11	5	11	3	11	7	9	6	4	2	14	11	21	14	22	15	147	81	18·74
Norfolk....4	Sporle	23	16	9	5	8	3	16	9	10	8	15	10	10	8	12	7	7	2	17	12	25	18	23	17	175	115	24·02
Wiltshire...3	Larkhill (Sch. of Artillery) ...	10	7	6	5	3	2	12	5	11	8	10	9	9	5	12	9	3	2	14	10	17	17	26	19	133	98	27·59
Dorsetshire..3	Dorchester (Wollaston House)	11	10	13	9	2	2	9	6	13	8	7	5	10	7	17	7	2	1	18	14	18	17	23	22	143	108	34·94
SouthDevon 2	Launceston (Polapit Tamar)	11	7	14	11	3	2	6	5	15	11	11	10	13	10	16	13	7	4	19	19	25	23	27	25	167	140	49·52
SouthDevon 4	Holne (Church Park Cottage)	12	7	18	15	3	2	9	5	16	12	9	9	13	9	18	8	4	3	19	16	23	21	27	24	171	131	81·93
NorthDevon 2	Barnstaple (N.Dev.Athenæum)	16	9	14	11	5	3	9	6	11	10	15	11	10	8	22	14	10	3	25	19	27	25	31	25	195	144	38·24
Cornwall...2	St. Austell (Trevarna)	15	10	18	14	4	2	9	8	15	15	12	10	10	7	18	10	4	3	21	19	24	23	28	26	178	147	55·02
Somerset ..1	Bath (Henrietta Park)	12	7	9	6	3	1	11	6	15	10	12	11	9	7	13	11	6	4	18	14	19	17	26	21	153	115	29·33
Somerset ..3	Angersleigh (Leigh Court) ...	13	6	10	8	4	2	13	7	15	11	13	9	9	7	14	8	4	2	19	13	23	19	28	24	165	116	40·15
Gloucester..4	Mickleton (Bank House)	14	7	6	3	1	0	14	9	12	9	12	8	9	7	13	7	4	3	14	11	17	16	24	20	140	100	25·35
Hereford ..1	Ross (Birchlea)	11	5	9	7	3	2	14	7	10	7	10	7	11	7	13	5	2	2	18	16	22	17	25	21	148	103	30·21
Shropshire .3	Bishops Castle (Castle St.)...	13	7	9	7	3	3	11	7	9	7	13	10	13	9	18	11	6	5	19	16	24	18	21	20	159	120	36·13
Shropshire .4	Shifnal (Hatton Grange)	14	10	8	6	3	2	12	9	12	7	12	7	11	8	14	10	7	5	14	11	23	18	25	17	155	110	24·93

Table V.—*Number of "Rain-days" (·01 in. or more) and of "Wet-days" (·04 in. or more) in* 1929.—(*con.*).

County and River Division.	Station.	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sep.		Oct.		Nov.		Dec.		Year.		Total Rainfall.
																												in.
ENGLAND AND WALES—(*con.*)																												
Staffs. 5	Ashbourne (Mayfield House).	15	8	8	4	4	3	14	7	11	8	13	10	12	8	18	12	8	6	16	12	22	17	26	23	167	118	32·68
Leicester ..4	Leicester (Stoughton Drive)..	13	8	5	3	2	1	14	8	11	10	10	8	9	6	14	9	3	2	16	11	20	18	24	20	141	104	23·58
Lincoln 3	Horncastle	18	8	8	4	5	3	14	3	14	7	15	9	13	7	13	9	4	3	15	12	20	15	23	18	162	98	21·31
Nottingham 5	Worksop (Hodsock Priory)..	18	10	11	4	4	0	14	6	12	8	11	6	10	5	16	10	7	5	15	10	20	16	26	18	164	98	20·66
Cheshire ...2	Northwich (Hunts Lock)	14	9	10	5	5	3	10	6	13	9	15	10	15	10	19	14	11	5	23	16	24	19	25	21	184	127	31·90
NorthLancs.5	Blackpool (Met. Observatory)	14	8	11	5	8	4	9	7	11	9	9	6	13	8	22	18	8	6	26	19	26	22	27	26	184	138	34·03
Yorks.W.R. 8	Meltham (Harewood Lodge).	19	9	10	6	7	5	15	9	15	12	15	10	12	9	21	15	9	6	22	14	25	21	26	25	196	141	43·89
Yorks. E.R. 3	Hull (Pearson Park)	20	11	14	5	4	2	15	6	11	8	14	9	9	8	17	11	6	4	14	11	20	15	26	18	170	108	21·05
Yorks. E.R. 4	Filey Vicarage	20	14	8	7	4	1	14	8	13	8	15	10	12	7	20	13	8	4	13	10	18	16	24	19	169	117	21·22
Yorks. N.R. 1	West Witton (Ivy House)...	16	7	14	10	6	2	15	8	14	11	12	8	11	6	19	14	7	4	21	14	22	20	24	23	181	127	30·14
Yorks. N.R. 2	Felixkirk (Mount St. John)..	20	16	13	9	5	1	10	7	14	14	14	11	12	8	22	12	5	5	18	13	22	19	26	19	181	134	25·55
Durham ...2	Sunderland (W. Hendon Ho.)	22	17	15	6	3	2	12	8	14	12	13	8	12	9	18	15	7	4	15	14	19	17	21	15	171	127	23·05
North'land .6	Ilderton (LilburnTower Gdns.)	22	16	15	12	3	3	12	7	10	7	13	10	12	10	18	15	7	2	17	16	20	15	23	20	172	133	28·45
Cumberland 1	Geltsdale	16	8	11	6	9	4	17	9	13	9	18	13	15	12	25	20	10	7	27	17	24	19	25	21	210	145	36·05
Westm'land 2	Grasmere (The Wray)	15	10	12	10	5	5	14	8	16	13	17	15	16	13	27	24	12	8	29	24	28	25	29	26	220	181	94·04
Glamorgan .6	Treherbert (Tyn-y-waun)....	12	7	11	9	6	4	13	8	15	14	11	11	10	10	20	17	8	7	24	19	26	23	27	26	183	155	104·52
Carmarthen 2	Carmarthen (The Friary) ...	12	9	11	10	6	6	13	7	14	11	13	9	14	10	23	18	6	3	23	17	26	23	28	25	189	148	56·43
Pembroke..4	Haverfordwest (Portfield) ...	13	11	17	13	4	4	12	6	14	12	10	7	14	11	18	13	10	5	24	18	25	23	27	23	188	146	53·34
Cardigan ..3	Lampeter (Falcondale)	11	8	13	10	6	4	12	7	14	10	14	12	16	14	22	19	10	7	25	19	27	26	26	26	196	162	52·06
Denbigh ...2	Denbigh (Garn)	14	8	9	7	3	0	11	9	9	8	14	12	12	10	24	16	8	5	25	22	27	25	26	26	182	148	31·64
Merioneth..4	Dolgelly (Bryntirion)	11	11	12	9	7	6	11	8	14	10	14	12	16	11	24	22	13	8	24	22	26	26	25	25	197	170	68·40
Anglesey....	Llanerchymedd (Ll'diarth Es.)	14	10	14	9	6	5	13	8	12	11	13	12	14	13	19	17	8	6	22	20	27	25	26	25	188	161	43·06
England and Wales	**(Mean of 47 Stations)**.....	15	9	10	7	4	2	12	7	12	9	12	9	11	8	16	11	6	4	18	14	22	19	25	21	165	121	35·79

Table V.—*Number of "Rain-days" (·01 in. or more) and of "Wet-days" (·04 in. or more) in* 1929.—*(con.).*

County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year.	Total Rainfall.
ISLE OF MAN.															in.
Isle of Man..	Douglas (Borough Cemetery).	14 10	17 9	6 5	9 9	16 13	12 7	14 12	23 19	6 4	24 21	27 24	24 21	192 154	45·21
CHANNEL ISLANDS.															
Guernsey...	St. Peter Port (Grange Road)	14 10	10 9	2 1	11 7	13 9	14 9	10 8	12 9	7 6	21 14	21 19	27 23	162 124	39·89
SCOTLAND.															
Wigtown ..3	Stoneykirk (Ardwell House)..	14 9	16 11	5 3	14 9	15 12	14 12	16 12	25 19	14 7	25 21	29 27	31 25	218 167	42·77
Dumfries ..3	Dumfries (Crichton Inst.) ..	10 7	11 9	6 4	9 6	16 13	14 10	12 10	23 20	7 4	21 16	23 21	25 22	177 142	38·51
Peebles 1	Edin. W.W. (Victoria Lodge)	10 9	11 9	5 4	15 10	15 15	17 10	18 13	27 22	14 6	25 18	25 22	26 24	208 162	48·90
Berwick....4	Duns Castle	18 9	17 12	4 1	15 6	13 9	16 9	16 11	22 15	12 3	21 16	22 17	24 20	200 128	27·79
Linlithgow .2	Linlithgow Academy	10 4	15 10	9 3	14 10	15 9	13 11	13 12	21 15	4 4	24 17	20 17	24 22	182 134	31·96
Lanarkshire 5	Strathaven (Dungavel).....	9 7	16 13	8 5	14 10	17 14	16 14	14 12	26 23	13 7	25 20	25 22	30 28	213 175	59·48
Ayrshire ...6	Maybole (Culzean Castle)....	6 6	14 12	5 3	12 9	15 12	15 12	13 12	22 17	11 8	25 24	24 20	27 26	189 161	44·52
Renfrew ...3	Greenock (Prospect Hill)	11 9	15 14	8 5	13 8	19 14	17 15	18 16	24 21	18 11	27 24	27 23	29 27	226 187	67·64
Buteshire ..3	Dougarie Lodge	13 9	17 13	7 4	13 7	13 11	14 10	18 14	24 19	18 13	25 21	26 23	29 26	217 170	55·38
Argyllshire .6	Dalmally (Manse of Glenorchy)	12 9	13 12	8 7	12 9	18 17	18 15	12 11	22 20	22 20	26 25	24 22	28 28	215 195	82·16
Argyllshire 14	Islay (Eallabus)	16 10	17 14	6 6	11 9	14 11	20 12	21 15	29 27	18 14	29 28	27 23	31 29	239 198	61·55
Argyllshire 14	Mull (Gruline)	20 9	18 14	11 7	19 10	17 15	20 16	21 18	26 22	26 22	28 27	26 23	30 28	262 211	78·18
Argyllshire 14	Tiree (Cornaigmore Sch.)....	19 8	18 12	7 4	15 8	16 14	15 10	19 13	26 20	23 16	28 26	26 23	29 27	241 181	47·22
Fifeshire ...3	Leuchars (Seaplane Station).	9 7	12 9	4 3	10 4	14 12	12 7	12 10	19 12	10 5	16 11	19 15	22 17	159 112	23·97
Perthshire.11	Aberfeldy (Dall Avon)	11 7	14 13	9 4	16 9	15 10	17 11	14 10	21 13	12 6	21 14	25 20	29 23	204 140	36·74
Kincardine .3	Banchory (Invercannie)	15 11	18 12	6 2	18 7	15 10	18 12	14 12	23 12	14 9	20 8	19 12	22 16	202 123	32·05
Aberdeen ..1	Balmoral (Castle Gardens)...	16 10	17 9	6 2	21 16	18 11	17 11	14 11	21 9	15 6	23 13	22 16	25 20	215 134	29·34
Aberdeen ..4	Peterhead (Forehill Works)..	19 15	20 11	8 2	18 15	12 10	18 15	14 8	26 19	15 13	21 14	17 14	22 17	210 153	31·39
Morayshire .2	Gordon Castle	14 13	11 7	6 1	17 11	14 9	17 12	14 10	22 15	14 11	25 16	20 12	21 16	195 133	23·21
Inverness ..3	Cluny Castle.....	14 8	13 10	8 3	16 13	19 14	19 16	14 12	22 16	20 15	30 23	26 23	29 26	230 179	39·51
Inverness .17	Fort William	13 7	13 10	7 7	12 9	20 18	21 20	18 16	28 25	23 20	30 26	24 23	30 30	239 211	79·73

Table V.—*Number of "Rain-days" (·01 in. or more) and of "Wet-days" (·04 in. or more) in* 1929.—(*con.*).

County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year.	Total Rainfall.
SCOTLAND —(*con.*).															in.
Inverness .18	Skye (Portree)	16 12	12 10	7 6	18 14	17 14	21 18	22 19	29 25	29 26	29 27	26 23	30 28	256 222	67·75
R'&Cromarty3	Fortrose	14 3	6 2	6 2	13 8	15 7	18 14	14 9	21 16	18 10	19 16	18 13	22 16	184 116	19·68
R'&Cromarty8	Loch Torridon (Bendamph)	15 13	12 12	8 8	17 15	16 16	24 22	18 17	26 26	26 25	30 29	21 21	29 28	242 232	76·73
R'&Cr'm'rty10	Stornoway	20 13	13 10	10 7	18 13	18 17	21 19	23 11	29 26	28 25	30 26	25 22	28 26	263 215	47·68
Sutherland .1	Lairg	8 6	5 5	6 6	15 13	17 12	15 14	11 8	24 18	19 17	24 20	21 16	25 18	190 153	35·68
Sutherland .5	Loch More (Achfary)	21 17	15 11	11 8	19 17	14 11	24 21	25 19	30 29	28 25	30 30	24 21	29 27	270 236	81·70
Caithness ..3	Thurso (Buckies)	19 17	14 6	8 3	16 13	13 11	21 21	13 11	26 24	22 20	28 26	23 23	26 26	229 201	43·09
Scotland ...	**(Mean of 28 Stations)**	**14 9**	**14 10**	**7 4**	**15 10**	**16 12**	**18 14**	**16 13**	**24 19**	**18 13**	**25 21**	**23 20**	**27 24**	**217 170**	**48·44**
IRELAND.															
Co. Cork ...6	Dunmanway (The Rectory)	19 12	21 19	6 5	12 11	22 19	13 11	19 15	21 14	9 7	24 18	29 26	27 27	222 184	70·21
Co. Cork ...7	Glanmire (Lota Lodge)	17 12	22 20	8 4	11 8	19 15	12 10	19 14	21 12	10 4	21 16	24 21	27 25	211 161	48·00
Co. Cork ..9	Mallow (Longueville)	14 10	21 18	8 4	10 7	21 15	15 10	18 11	23 15	9 4	26 17	29 23	27 25	221 159	44·79
Co. Kerry ..3	Cahirciveen (Valentia Obsy.)	13 13	22 19	7 5	13 10	20 15	18 11	22 18	26 19	13 8	28 21	29 29	29 27	240 195	60·30
Waterford..3	Waterford (Brook Lodge)	15 10	22 19	4 3	9 7	17 14	13 11	16 13	18 11	5 4	14 11	20 19	27 23	180 145	46·34
Tipperary ..1	Nenagh (Castle Lough)	12 8	15 14	5 4	15 9	16 11	13 8	17 17	26 21	9 7	22 19	26 23	27 26	203 167	41·69
Tipperary ..3	Cashel (Ballinamona)	14 11	22 15	6 4	12 7	18 15	15 7	17 10	23 19	12 8	22 17	28 21	28 25	217 159	37·45
Limerick ...2	Foynes (Coolnanes)	14 9	20 15	6 4	11 7	15 10	18 9	18 14	26 18	10 6	26 21	28 24	28 27	220 164	40·09
Co. Wexford4	Gorey (Courtown House)	10 7	22 17	4 3	9 4	13 11	12 11	13 10	16 13	5 3	15 9	25 19	28 23	172 130	42·25
Queen's Co. 2	Abbey Leix (Blandsfort)	14 10	20 14	5 3	10 6	16 12	16 11	16 11	26 24	7 5	24 18	28 21	28 24	210 159	36·43
Co. Dublin .2	Dublin (Fitz William Square)	13 6	20 13	4 2	10 5	15 8	15 8	12 10	23 14	7 2	22 12	26 20	26 21	193 121	27·26
Co. Meath..4	Kells (Headfort)	14 7	17 17	3 3	10 6	14 12	17 11	12 12	24 22	12 7	22 13	27 23	26 23	198 156	36·94
Co.W'meath1	Moate (Coolatore)	16 11	22 17	5 4	12 7	16 11	17 12	18 15	25 18	16 8	25 18	27 21	28 23	227 165	34·62
Co.Longford2	Castle Forbes Gardens	15 7	21 15	5 3	11 7	14 9	15 12	17 15	25 21	12 5	26 18	23 20	27 24	211 156	40·76
Co. Galway.3	Ballynahinch Castle	13 12	22 20	4 4	16 12	18 16	19 18	21 17	27 24	21 16	29 28	27 24	28 28	245 219	70·61

Table V.—*Number of "Rain-days" (·01 in. or more) and of "Wet-days" (·04 in. or more) in 1929.—(con.).*

County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year.	Total Rain-fall.
IRELAND —(*con.*).															in.
Co. Mayo ..4	Mallarany	14 12	22 16	5 4	11 8	14 14	17 15	22 17	28 27	20 16	29 27	27 27	27 26	236 209	65·89
Co. Sligo...2	Collooney (Markree Obsy.)...	14 9	21 16	6 4	13 8	18 11	15 13	17 13	26 22	18 10	27 23	27 25	28 28	230 182	44·86
Co. Cavan..1	Belturbet (Cloverhill)	15 8	23 15	5 4	12 5	19 10	18 13	17 14	28 20	15 8	24 17	26 21	28 25	230 160	36·32
Co. Down ..2	Seaforde	13 9	19 16	12 3	13 11	13 12	15 15	15 10	29 25	9 6	18 17	25 23	28 23	209 170	40·90
Co. Antrim.5	Ballymena (Harryville)	15 11	18 16	6 4	14 11	15 12	16 14	13 12	25 22	17 11	26 24	27 24	27 23	219 184	43·43
Co. Tyrone .3	Omagh (Edenfel)	15 8	23 14	5 5	15 7	15 11	20 14	17 16	27 24	20 9	27 24	26 23	29 28	239 183	41·66
Co. Donegal 3	Milford (The Manse).....	14 10	19 13	6 4	15 12	15 12	20 17	19 14	27 25	19 12	28 25	26 23	31 28	239 195	40·79
Co. Donegal 5	Killybegs (Rockmount)	15 9	21 19	7 5	14 9	13 11	17 16	20 15	26 22	18 12	27 26	25 24	29 26	232 194	58·03
Ireland	**(Mean of 23 Stations).....**	**14 10**	**21 16**	**6 4**	**12 8**	**16 12**	**16 12**	**17 14**	**25 20**	**13 8**	**24 19**	**26 23**	**28 25**	**218 170**	**45·63**
British Isles.	**(Mean of 100 Stations) ....**	**14 9**	**14 10**	**5 3**	**13 8**	**14 11**	**15 11**	**14 11**	**21 16**	**11 8**	**22 17**	**23 20**	**26 23**	**192 147**	**41·73**

3. ABSOLUTE DROUGHTS, PARTIAL DROUGHTS AND DRY SPELLS IN 1929.

As in the analogous case of rain-days and wet-days, certain definitions have to be adopted in order to obtain a reliable body of statistical information on the subject of droughts. The definitions used are :—An **absolute drought** is a period of at least 15 consecutive days, to none of which is credited ·01 inch of rain or more. A **partial drought** is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed ·01 inch. A **dry spell** is a period of at least 15 consecutive days to none of which is credited ·04 inch of rain or more. These terms are used in *British Rainfall* only in the senses stated. More concise definitions of two of these terms would be :—

An *absolute drought* is a period of at least 15 days, none of which is a rain-day ; a *dry spell* is a period of at least 15 days, none of which is a wet-day.

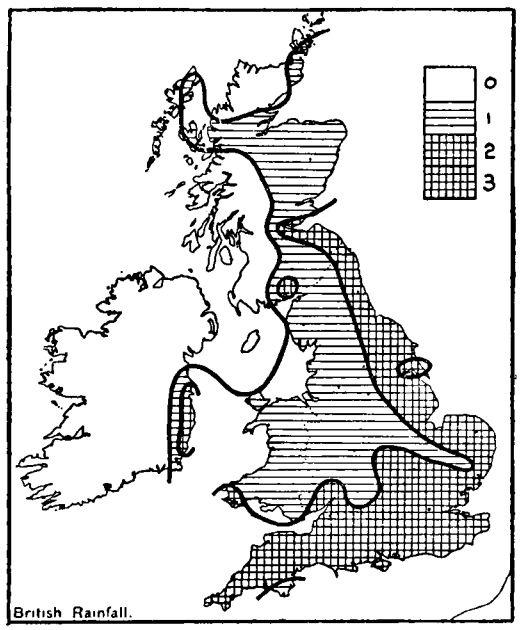
In Table VIII are given particulars of the absolute droughts, partial droughts and dry spells, which occurred at the 100 selected stations of Table V. Among these stations there was only one in 1929 without either a drought or dry spell, *viz.*, Loch More (Achfary) in Sutherlandshire, and this station is omitted from the Table VIII. This is a remarkable feature of the rainfall of the year for usually there are a large number of such stations. Thus in 1928, 1927 and 1926 as many as 21, 40 and 24 stations, respectively, out of the 100 stations, recorded no such drought or dry spell, while even during the famous dry year 1921 there were 18 stations which escaped such droughts.

The total number of absolute droughts recorded in 1929 at the 100 stations was 110, or 49 more than the average for 1887–1929. Partial droughts numbered 99 or 48 more than the average. It will be observed from Table VII that the number of absolute droughts during 1929 was exceeded in only 4 out of the 43 years, *viz.*, 1911, 1901, 1899 and 1887 with 137, 112, 120 and 160, respectively. The number of partial droughts during 1929 was also exceeded in 4 years, *viz.*, 1921, 1911, 1893 and 1887 with 109, 137, 106 and 116, respectively. The number of dry spells was 215, or 85 above the average, 1917–1929, and exceeded that of any other year in the series since 1917. Even during 1921 there were 14 fewer dry spells.

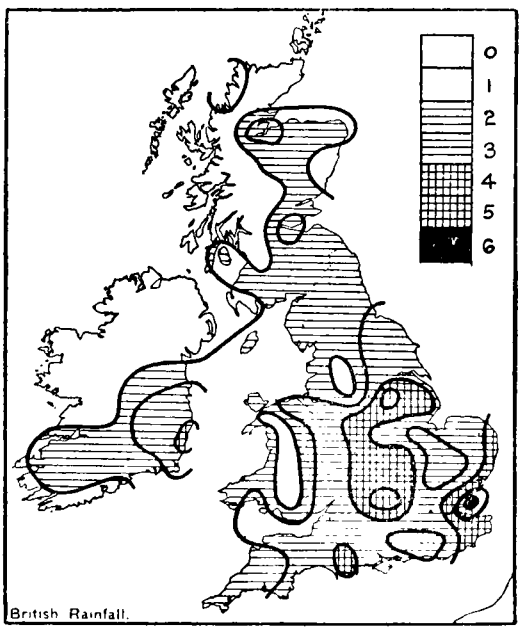
The number of stations with droughts during the year is even more remarkable. Out of the 100 stations, only 14 had no absolute drought, 35 no partial drought and 1 no dry spell. While there were more stations with absolute droughts in 1929 than in any other year back to 1887, there were more stations with partial droughts in as many as

9 years. The widespread distribution of absolute droughts and dry spells was therefore one of the most remarkable features of the incidence of the rainfall during 1929.

The total number of partial droughts and dry spells is shown in the diagrams. At least one partial drought occurred at each of the selected stations in England and Wales and in the eastern half of Scotland. There were partial droughts at only 2 stations in Ireland. A number of stations recorded 2 partial droughts, while there were 3 at Hull. The longest partial drought occurred at Selborne and lasted for 85 days from February 3rd to April 28th, during which period there was only ·85 inch of rain. As many as 34 stations recorded 3 or more dry spells during the year, while there were 6 at Great Wakering, near Shoeburyness. This station recorded the longest dry spell during the year, *viz.*, of 53 days, from February 10th to April 3rd.



Number of Partial Droughts, 1929.



Number of Dry Spells, 1929.

All the droughts and dry spells were confined to the first 9 months of the year, the latest date in Table VIII being September 29th. The partial droughts fall naturally into 2 groups, those covering part of March or September. In addition Hull experienced a partial drought from June 15th to July 27th. There were 68 partial droughts involving March or part of March and 33 involving September. The earliest partial drought occurred at Fortrose, near the Moray Firth, commencing on January 10th and lasting until March 29th, a period of 79 days. Some of the partial droughts extended until April 28th, but the majority ended with March or in early April.

The *dry spells* naturally include all the absolute droughts, but the period covered by a dry spell is often longer than that of an included absolute drought, while the list of dry spells contains periods which do

not qualify as absolute droughts. Dry spells were most frequent in March. There were 12 dry spells in January or February, 102 involving part of March, 56 from April to July and 45 covering part of September. The dry March of 1929 gave rise to more dry spells than occurred in the whole of 1926 or 1927 and nearly twice as many as in 1923 or 1920. The earliest dry spell, commencing on January 10th, occurred in Bute, at Maybole in Ayr and at Linlithgow. Most stations recorded a dry spell covering the last few days of February and the first three weeks of March.

Table VI.—*Dry Spells*, 1917–1929 (*i.e.*, 15 days without a "wet day"‡).

Year.	Number at 100 Stations.	Mean Duration.	Longest Spell.	Number of Stations with			
				None.	1 or 2.	3 or 4.	5 or more.
		Days.	Days.				
1917	193	20	31	5	70	25	0
1918	118	17	26	36	47	17	0
1919	98	19	38	35	62	3	0
1920	56	18	31	55	44	1	0
1921	201	21	58	21	43	29	7
1922	162	18	30	13	65	22	0
1923	65	18	29	54	43	3	0
1924	120	17	29	32	56	12	0
1925	164	22	43	14	65	21	0
1926	98	19	40	30	65	5	0
1927	91	17	31	43	49	8	0
1928	115	19	31	25	68	7	0
1929	215	22	53	1	65	31	3
Average 1917–1929	130	19	36	28	57	14	1

‡ A day with ·04 in. or more.

Table VII.—*Comparative Summary of Droughts*, 1887–1929.

Year.	ABSOLUTE DROUGHTS.* No. of Droughts at 100 Stations.	Mean Duration.	Longest.	Stations without one.	PARTIAL DROUGHTS.† No. of Droughts at 100 Stations.	Mean Duration.	Longest.	Stations without one.
		Days.	Days.			Days.	Days.	
1887	160	21	34	4	116	40	74	18
1888	34	17	20	70	8	42	50	92
1889	84	21	30	26	76	34	45	30
1890	26	18	20	78	6	30	31	94
1891	52	18	34	56	76	36	49	28
1892	72	16	20	50	34	35	64	66
1893	78	20	44	46	106	51	114	20
1894	104	18	31	20	88	37	62	26
1895	104	19	29	32	94	39	64	38
1896	54	18	26	50	98	40	75	32
1897	40	18	20	62	14	40	61	88
1898	62	17	28	54	62	38	77	52
1899	120	21	31	20	82	35	48	40
1900	28	17	21	76	18	32	35	82
1901	112	17	20	20	18	37	56	84
1902	10	17	18	90	4	37	41	96
1903	22	19	25	79	33	34	41	71
1904	12	16	18	88	18	34	41	82
1905	26	17	20	74	59	36	48	60
1906	73	17	25	47	40	36	55	62
1907	56	19	25	51	30	32	41	71
1908	74	18	32	48	52	35	54	68
1909	47	17	23	66	18	37	51	84
1910	32	16	24	70	23	33	42	78
1911	137	19	32	20	137	36	75	19
1912	105	19	32	26	68	37	69	42
1913	67	17	26	33	52	37	62	54
1914	49	20	25	65	54	33	50	57
1915	68	18	33	38	56	36	50	57
1916	52	20	29	51	44	33	43	57
1917	109	19	28	23	64	33	61	46
1918	20	16	18	83	14	34	47	87
1919	33	18	31	68	44	38	50	63
1920	18	17	22	84	22	37	54	79
1921	86	19	38	47	109	42	89	30
1922	63	17	23	46	44	36	51	66
1923	11	17	24	89	20	38	54	80
1924	50	16	22	55	25	36	57	81
1925	74	23	33	37	76	38	60	29
1926	20	17	24	83	43	36	57	64
1927	11	17	19	90	19	32	43	83
1928	50	17	22	57	41	33	43	70
1929	110	20	37	14	99	47	85	35
Average 1887–1929	61	18	26	53	51	37	56	60
1929 diff. from Average.	+49	+2	+11	−39	+48	+10	+29	−25

* 15 days without a "rain day."

† 29 days averaging not more than ·01 in.

TABLE VIII.—*Droughts and Dry Spells in 1929.*

County and River Division.	Station.	Absolute Droughts.*			Partial Droughts.†				Dry Spells.‡			
		Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Rain.	Began.	Ended.	Lasted.	Rain.
ENGLAND AND WALES				days			days	in.			days	in.
London 2	St. Pancras (Camden Square)..	Feb. 27	Mar. 20	22	Feb. 3	April 3	60	·45	Feb. 26	Mar. 31	34	·03
		..	..	..	..	..	..	..	June 16	July 2	17	·07
		Aug. 23	Sept. 28	37	Aug. 17	Sept. 29	44	·38	Aug. 21	Sept. 28	39	·02
Kent 2	Lympne Aerodrome	Mar. 6	Mar. 21	16	Feb. 10	April 9	59	·58	Feb. 24	Mar. 21	26	·06
		..	..	..	..	..	..	..	April 13	April 27	15	·02
		..	..	..	..	..	..	..	May 16	June 1	17	·01
		..	..	..	Aug. 17	Sept. 28	43	·07	Aug. 17	Sept. 28	43	·07
Sussex 3	Patcham (Brighton W.W.) ..	Feb. 25	Mar. 19	23	Feb. 10	April 10	60	·51	Feb. 24	Mar. 20	25	·05
		Aug. 28	Sept. 17	21	Aug. 21	Sept. 28	39	·36	Aug. 28	Sept. 17	21	·00
Hampshire 1	Ventnor (Roy. Nat. Hospital)	Feb. 26	Mar. 19	22	Feb. 10	April 11	61	·57	Feb. 24	Mar. 19	24	·04
		July 6	July 27	22	..	..	..	..	July 4	July 27	24	·04
		..	..	..	Aug. 17	Sept. 28	43	·35	Aug. 21	Sept. 15	26	·06
,, 7	Selborne (The Wakes)	Feb. 26	Mar. 20	23	Feb. 3	April 28	85	·85	Feb. 10	Mar. 20	39	·10
		Aug. 25	Sept. 15	22	Aug. 8	Sept. 15	39	·34	Aug. 21	Sept. 15	26	·01
Berkshire ..5	Upton (Manor House)	..	..	..	..	..	..	..	Jan. 11	Jan. 27	17	·11
		Feb. 27	Mar. 20	22	Feb. 3	April 10	67	·67	Feb. 26	Mar. 23	26	·07
		..	..	..	..	..	..	..	June 15	June 29	15	·03
		..	..	..	Aug. 6	Sept. 29	55	·53	Aug. 22	Sept. 11	21	·03
		Sept. 13	Sept. 28	16	..	..	..	..	Sept. 13	Sept. 28	16	·00
Northamp- tonshire. 4	Wellingborough (Swanspool)..	..	..	..	Feb. 3	April 3	60	·58	Feb. 10	Feb. 25	16	·10
		Mar. 4	Mar. 23	20	..	..	..	..	Feb. 27	Mar. 31	33	·04
		..	..	..	Aug. 4	Sept. 29	57	·49	Aug. 18	Sept. 11	25	·11
		..	..	..	..	..	..	..	Sept. 13	Sept. 29	17	·01
,, 4	Eye (Northolm)	..	..	..	Feb. 3	April 27	84	·83	Feb. 10	Feb. 25	16	·03
		Mar. 4	Mar. 23	20	..	..	..	..	Feb. 27	Mar. 23	25	·01
Cambridge 2	Cambridge (Botanic Gardens).	Mar. 6	Mar. 24	19	Feb. 1	April 2	61	·57	Feb. 27	Mar. 31	33	·03
		Aug. 23	Sept. 28	37	July 29	Sept. 29	63	·63	Aug. 23	Sept. 28	37	·00
Essex 3	Great Wakering	..	..	..	Feb. 1	April 11	70	·68	Feb. 10	April 3	53	·09
		Mar. 13	Mar. 31	19	..	..	..	..	April 13	April 27	15	·06
		..	..	..	..	..	..		May 13	June 3	22	·06
		..	..	..	..	..	..	..	June 16	July 1	16	·05
		..	..	..	..	..	..	..	July 7	July 27	21	·06
		Aug. 23	Sept. 17	26	Aug. 17	Sept. 17	32	·12	Aug. 19	Sept. 17	30	·02

* At least 15 days, none credited with ·01 in. or more. † At least 29 days, with an average not exceeding ·01 in.
‡ At least 15 days, none credited with ·04 in. or more.

TABLE VIII.—*Droughts and Dry Spells in* 1929—(*con.*).

County and River Division.	Station.	Absolute Droughts.*			Partial Droughts.†				Dry Spells.‡			
		Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Rain.	Began.	Ended.	Lasted.	Rain.
				days			days	in.			days	in.
Suffolk 2	Haughley (Haughley House)..	..	..	..	Feb. 1	April 9	68	·65	Feb. 15	April 3	48	·10
		Mar. 13	Mar. 31	19	..	..	..	..	June 7	July 1	25	·06
Norfolk 1	Gorleston	..	..	..	Feb. 1	April 2	61	·56	Feb. 24	April 2	38	·15
		..	..	..	..	..	..	..	May 16	June 3	19	·06
		..	..	..	..	..	..	..	June 7	July 2	26	·13
		Aug. 25	Sept. 19	26	Aug. 17	Sept. 28	43	·39	Aug. 25	Sept. 19	26	·01
,, ...4	Sporle	..	..	..	Feb. 10	Mar. 31	50	·50	Feb. 15	Mar. 2	16	·07
		..	..	..	..	..	..	..	Mar. 6	Mar. 23	18	·07
		Aug. 29	Sept. 16	19	Aug. 17	Sept. 29	44	·44	Aug. 23	Sept. 16	25	·03
Wiltshire ..3	Larkhill (School of Artillery)..	Feb. 24	Mar. 20	25	Feb. 3	April 26	83	·68	Feb. 24	Mar. 20	25	·00
		..	..	..	..	..	..	..	July 6	July 27	22	·04
		Sept. 13	Sept. 28	16	Aug. 8	Sept. 28	52	·49	Sept. 1	Sept. 28	28	·03
Dorsetshire..3	Dorchester (Wollaston House)	Feb. 27	Mar. 20	22	Feb. 21	April 28	67	·65	Feb. 27	Mar. 20	22	·00
		..	..	..	..	..	..	..	June 14	June 28	15	·02
		July 6	July 21	16	..	..	..	..	July 6	July 21	16	·00
		Sept. 1	Sept. 28	28	Aug. 6	Sept. 28	54	·54	Sept. 1	Sept. 29	29	·03
S. Devon ..2	Launceston (Polapit Tamar)..	Feb. 26	Mar. 19	22	Feb. 12	Mar. 19	36	·34	Feb. 26	Mar. 19	22	·00
		..	..	..	Sept. 1	Sept. 29	29	·22	Sept. 2	Sept. 18	17	·02
,, ..4	Holne (Church Park Cottage)..	Feb. 27	Mar. 19	21	..	..	..	..	Feb. 27	Mar. 19	21	·00
		..	..	..	..	..	..	..	July 6	July 20	15	·04
		..	..	..	Aug. 18	Sept. 28	42	·41	Sept. 12	Sept. 28	17	·02
N. Devon ..2	Barnstaple (N. Dev. Athenæum)	Feb. 27	Mar. 19	21	Feb. 15	Mar. 20	34	·33	Feb. 26	Mar. 19	22	·01
		..	..	..	..	..	..	..	July 6	July 20	15	·01
		..	..	..	Aug. 25	Sept. 28	35	·35	Sept. 1	Sept. 18	18	·03
Cornwall 2	St. Austell (Trevarna)	Feb. 27	Mar. 19	21	Feb. 16	Mar. 19	32	·25	Feb. 26	Mar. 19	22	·01
		Aug. 25	Sept. 18	25	Aug. 10	Sept. 28	50	·48	Aug. 22	Sept. 18	28	·02
Somerset- 1 shire.	Bath (Henrietta Park)	Feb. 27	Mar. 20	22	Feb. 16	April 26	70	·68	Feb. 26	Mar. 20	23	·02
		July 6	July 20	15	..	..	..	..	July 6	July 20	15	·00
		..	..	..	Sept. 1	Sept. 29	29	·28	Sept. 2	Sept. 18	17	·04
, 3	Angersleigh (Leigh Court)....	Feb. 27	Mar. 20	22	Feb. 27	April 24	57	·55	Feb. 27	Mar. 20	22	·00
		..	..	..	..	..	..	..	July 6	July 20	15	·02
		Sept. 2	Sept. 18	17	Aug. 7	Sept. 28	53	·44	Sept. 1	Sept. 28	28	·02
Gloucester..4	Mickleton (Bank House)	..	..	..	Feb. 3	April 9	66	·56	Feb. 10	Feb. 24	15	·03
		Feb. 28	Mar. 23	24	..	..	..	..	Feb. 26	April 3	37	·05
		..	..	..	..	..	..	..	June 15	July 3	19	·06
		Sept. 4	Sept. 20	17	..	..	..	..	Sept. 4	Sept. 29	26	·01

* At least 15 days, none credited with ·01 in. or more. † At least 29 days, with an average not exceeding ·01 in.
‡ At least 15 days, none credited with ·04 in. or more.

TABLE VIII.—*Droughts and Dry Spells in* 1929—(*con.*).

County and River Division.		Station.	Absolute Droughts.*			Partial Droughts.†				Dry Spells.‡			
			Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Rain.	Began.	Ended.	Lasted.	Rain.
					days			days	in.			days	in.
Hereford-shire.	1	Ross (Birchlea)	Feb. 27	Mar. 16	18	Feb. 12	April 11	59	·58	Feb. 27	Mar. 20	22	·01
			..	..	..	..	..	..	..	June 15	July 3	19	·07
			Sept. 4	Sept. 29	26	Aug. 19	Sept. 29	42	·35	Sept. 4	Sept. 29	26	·00
Shropshire	3	Bishops Castle (Castle Street)	Feb. 27	Mar. 19	21	Feb. 12	Mar. 20	37	·31	Feb. 27	Mar. 19	21	·00
			..	..	..	..	..	..	..	May 15	May 31	17	·01
,,	4	Shifnal (Hatton Grange)	..	..	..	Feb. 10	April 21	71	·70	Feb. 10	Feb. 24	15	·01
			Feb. 27	Mar. 20	22	..	..	..	..	Feb. 27	Mar. 20	22	·00
			July 13	July 27	15	..	..	..	..	July 13	July 27	15	·00
Stafford-shire.	5	Ashbourne (Mayfield House)..	..	..	..	Feb. 3	Mar. 31	57	·57	Feb. 9	Feb. 25	17	·07
			Feb. 27	Mar. 20	22	..	..	..	..	Feb. 27	Mar. 20	22	·00
			..	..	..	..	..	..	..	April 9	April 24	16	·09
			..	..	..	..	..	..	..	Sept. 4	Sept. 18	15	·03
Leicester-shire.	4	Leicester (Stoughton Drive) ..	Feb. 27	Mar. 20	22	Feb. 1	April 3	62	·52	Feb. 12	Mar. 23	40	·06
			..	..	..	..	..	..	..	July 13	July 27	15	·02
			Sept. 10	Sept. 29	20	Sept. 1	Sept. 29	29	·25	Sept. 4	Sept. 29	26	·03
Lincolnshire	3	Horncastle	Mar. 4	Mar. 18	15	Feb. 3	April 3	60	·59	Feb. 15	Mar. 19	33	·03
			..	..	..	..	..	..	..	April 11	April 27	17	·14
			..	..	..	..	..	..	..	May 13	May 31	19	·09
			Sept. 4	Sept. 19	16	Sept. 1	Sept. 29	29	·23	Sept. 4	Sept. 19	16	·00
Notting-hamshire.	5	Worksop (Hodsock Priory) ..	..	..	..	Feb. 3	April 25	82	·78	Feb. 11	Feb. 25	15	·05
			..	..	..	..	..	..	..	Feb. 27	April 3	36	·09
			..	..	..	..	..	..	..	April 9	April 24	16	·10
			..	..	..	..	..	..	..	July 13	July 27	15	·03
			..	..	..	..	..	..	..	Sept. 4	Sept. 18	15	·02
Cheshire	2	Northwich (Hunts Lock)	Feb. 27	Mar. 19	21	Feb. 9	Mar. 20	40	·24	Feb. 25	Mar. 20	24	·06
			..	..	..	..	..	..	..	April 9	April 24	16	·05
			..	..	..	..	..	..	..	May 15	May 31	17	·02
N. Lanca-shire.	5	Blackpool (Met. Observatory)	..	..	..	Feb. 10	Mar. 20	39	·29	Feb. 27	Mar. 19	21	·02
			..	..	..	..	..	..	..	May 15	May 31	17	·02
Yorkshire W.R.	8	Meltham (Harewood Lodge) ..	..	..	..	Feb. 2	Mar. 20	47	·42	Feb. 27	Mar. 19	21	·02
,, E.R.	3	Hull (Pearson Park)	Mar. 4	Mar. 20	17	Feb. 14	April 23	69	·66	Feb. 15	Mar. 20	34	·08
			..	..	..	..	..	..	..	April 5	April 23	19	·12
			..	..	..	June 15	July 27	43	·40	..	..	..	..
			Sept. 4	Sept. 18	15	Sept. 1	Sept. 29	29	·19	Sept. 1	Sept. 18	18	·01

* At least 15 days, none credited with ·01 in. or more. † At least 29 days, with an average not exceeding ·01 in.
‡ At least 15 days, none credited with ·04 in. or more.

TABLE VIII.—*Droughts and Dry Spells in* 1929—(*con.*).

County and River Division.	Station.	Absolute Droughts.*			Partial Droughts.†				Dry Spells.‡			
		Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Rain.	Began.	Ended.	Lasted.	Rain.
				days			days	in.			days	in.
Yorkshire E.R. 4	Filey Vicarage	Mar. 4	Mar. 20	17	Feb. 11	April 23	72	·72	Mar. 4	April 1	29	·05
		..	..	..	..	..	..	..	July 11	July 27	17	·05
		..	..	..	Sept. 1	Oct. 4	34	·34	Sept. 1	Sept. 19	19	·05
N.R. 1	West Witton (Ivy House)	..	..	..	Feb. 11	Mar. 30	48	·48	Feb. 27	Mar. 20	22	·04
		..	..	..	..	..	..	..	July 6	July 21	16	·05
N.R. 2	Felixkirk (Mount St. John)	..	..	..	Feb. 15	Mar. 20	34	·31	Feb. 26	Mar. 20	23	·05
		..	..	..	..	..	..	..	April 9	April 23	15	·07
		Sept. 1	Sept. 18	18	Aug. 24	Sept. 27	35	·34	Sept. 1	Sept. 18	18	·00
Durham 2	Sunderland (W. Hendon House)	Mar. 4	Mar. 20	17	Feb. 9	April 3	54	·54	Feb. 26	Mar. 20	23	·02
		..	..	..	Aug. 28	Sept. 27	31	·31	Sept. 13	Sept. 27	15	·05
Northumberland. 6	Ilderton (Lilburn Tower)	Mar. 5	Mar. 30	26	Mar. 5	April 18	45	·43	Mar. 5	Mar. 30	26	·00
		..	..	..	Aug. 29	Sept. 27	30	·21	Aug. 30	Sept. 27	29	·12
Cumberland 1	Geltsdale	..	..	..	Feb. 9	Mar. 23	43	·37	Feb. 25	Mar. 20	24	·10
		May 16	May 31	16	..	..	..	..	May 16	May 31	16	·00
Westmorland. 2	Grasmere (The Wray)	Feb. 25	Mar. 19	23	Feb. 9	Mar. 19	39	·32	Feb. 25	Mar. 19	23	·00
		..	..	..	..	..	..	..	Sept. 4	Sept. 18	15	·04
Glamorgan 6	Treherbert (Tyn-y-waun)	Feb. 27	Mar. 19	21	Feb. 12	Mar. 19	36	·35	Feb. 27	Mar. 19	21	·00
Carmarthen 2	Carmarthen (The Friary)	Feb. 26	Mar. 19	22	Feb. 10	Mar. 19	38	·34	Feb. 26	Mar. 19	22	·00
		..	..	..	..	..	..	..	June 16	July 3	18	·05
		..	..	..	..	..	..	..	Sept. 4	Sept. 27	24	·04
Pembrokeshire. 4	Haverfordwest (Portfield)	Feb. 26	Mar. 19	22	Feb. 16	Mar. 19	32	·22	Feb. 24	Mar. 19	24	·03
		..	..	..	Mar. 26	April 24	30	·30	..	..	..	..
		June 16	July 1	16	..	..	..	..	June 16	July 2	17	·03
Cardigan 3	Lampeter (Falcondale)	Feb. 27	Mar. 19	21	Feb. 12	Mar. 20	37	·37	Feb. 26	Mar. 19	22	·01
		..	..	..	..	..	..	..	April 5	April 25	21	·07
Denbigh 2	Denbigh (Garn)	Feb. 27	Mar. 20	22	Feb. 10	April 2	52	·47	Feb. 27	Mar. 31	33	·06
		..	..	..	..	..	..	..	April 9	April 24	16	·05
		May 15	May 31	17	..	..	..	..	May 15	May 31	17	·00
Merioneth 4	Dolgelly (Bryntirion)	Feb. 27	Mar. 19	21	Feb. 10	Mar. 19	38	·26	Feb. 27	Mar. 19	21	·00
		..	..	..	..	..	..	..	April 9	April 24	16	·02
Anglesey	Llanerchymedd (Ll'diarth Es.)	..	..	..	Feb. 12	Mar. 19	36	·30	Feb. 27	Mar. 19	21	·01
		Aug. 30	Sept. 13	15	..	..	..	..	Aug. 30	Sept. 13	15	·00

* At least 15 days, none credited with ·01 in. or more. † At least 29 days, with an average not exceeding ·01 in.
‡ At least 15 days, none credited with ·04 in. or more.

TABLE VIII.—*Droughts and Dry Spells in* 1929—(*con.*).

County and River Division.	Station.	Absolute Droughts.*			Partial Droughts.†				Dry Spells.‡			
		Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Rain.	Began.	Ended.	Lasted.	Rain.
				days			days	in.			days	in.
ISLE OF MAN.												
Isle of Man	Douglas (Borough Cemetery)..	..	..	..	..	..	..	..	Feb. 24	Mar. 19	24	·08
		Sept. 4	Sept. 18	15	..	..	..	..	Sept. 4	Sept. 19	16	·01
CHANNEL ISLANDS.												
Guernsey ..	St. Peter Port (Grange Road)	Feb. 27	Mar. 20	22	Feb. 24	April 10	46	·45	Feb. 27	Mar. 20	22	·00
		..	..	..	Aug. 7	Sept. 14	39	·32	July 7	July 22	16	·02
SCOTLAND.												
Wigtown ..3	Stoneykirk (Ardwell House) ..	..	..	..	..	..	..	..	Feb. 24	Mar. 20	25	·05
Dumfries ..3	Dumfries (Crichton Roy. Inst.)	..	..	..	Feb. 6	Mar. 19	42	·41	Feb. 25	Mar. 19	23	·02
		..	..	..	Aug. 30	Sept. 27	29	·26	Sept. 1	Sept. 18	18	·05
Peebles 1	Edin. W. W. (Victoria Lodge)	Feb. 25	Mar. 19	23	Feb. 10	Mar. 19	38	·36	Feb. 25	Mar. 19	23	·00
		..	..	..	..	..	..	..	Sept. 1	Sept. 18	18	·09
Berwickshire4	Duns Castle	..	..	..	Feb. 25	April 3	38	·33	Feb. 27	Mar. 30	32	·07
Linlithgow 2	Linlithgow Academy	..	..	..	Sept. 1	Sept. 30	30	·28	Sept. 9	Sept. 27	19	·08
		..	..	..	..	..	..	..	Jan. 10	Jan. 25	16	·03
		..	..	..	Feb. 25	Mar. 30	34	·30	Feb. 25	Mar. 19	23	·09
		Sept. 5	Sept. 19	15	Sept. 1	Sept. 29	29	·29	Sept. 5	Sept. 19	15	·00
Lanarkshire 5	Strathaven (Dungavel)	Mar. 3	Mar. 19	17	..	..	..	..	Feb. 25	Mar. 19	23	·06
Ayrshire ..6	Maybole (Culzean Castle Gardens)	Jan. 10	Jan. 25	16	..	..	..	..	Jan. 10	Jan. 25	16	·00
		Feb. 25	Mar. 19	23	..	..	..	..	Feb. 24	Mar. 19	24	·02
Renfrew ..3	Greenock (Prospect Hill)	Mar. 3	Mar. 19	17	..	..	..	..	Feb. 25	Mar. 19	23	·01
Buteshire ..3	Dougarie Lodge	..	..	..	..	..	..	..	Jan. 10	Jan. 25	16	·06
		Feb. 27	Mar. 19	21	..	..	..	..	Feb. 25	Mar. 19	23	·01

* At least 15 days, none credited with ·01 in. or more. † At least 29 days, with an average not exceeding ·01 in.
‡ At least 15 days, none credited with ·04 in. or more.

TABLE VIII.—*Droughts and Dry Spells in* 1929—(*con.*).

County and River Division.	Station.	Absolute Droughts.*			Partial Droughts.†				Dry Spells.‡			
		Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Rain.	Began.	Ended.	Lasted.	Rain.
				days			days	in.			days	in.
Argyllshire 6	Dalmally (Manse of Glenorchy)	Feb. 25	Mar. 18	22	..	..	..	..	Feb. 25	Mar. 18	22	·00
,, 14	Islay (Eallabus)	Feb. 25	Mar. 19	23	..	..	..	..	Feb. 25	Mar. 19	23	·00
,, 14	Mull (Gruline)	..	..	..	..	..	..	..	Feb. 26	Mar. 19	22	·03
,, 14	Tirce (Cornaigmore Sch.)	Mar. 2	Mar. 19	18	..	..	..	..	Feb. 25	Mar. 19	23	·02
Fifeshire ..3	Leuchars (Training Base)	..	..	..	..	..	..	..	Jan. 11	Jan. 27	17	·04
		Feb. 26	Mar. 19	22	Feb. 25	Mar. 30	34	·26	Feb. 26	Mar. 19	22	·01
		..	..	..	..	..	..	..	Sept. 6	Sept. 28	23	·10
Perth 11	Aberfeldy (Dall Avon)	Mar. 3	Mar. 19	17	Feb. 26	Mar. 30	33	·31	Feb. 27	Mar. 20	22	·05
Kincardine 3	Banchory (Invercannie)	Mar. 5	Mar. 20	16	Feb. 27	April 17	50	·50	Feb. 27	Mar. 20	22	·05
Aberdeen ..1	Balmoral (Castle Gardens)....	Mar. 4	Mar. 20	17	Feb. 25	Mar. 31	35	·33	Mar. 3	Mar. 30	28	·08
		..	..	..	..	..	..	..	July 12	July 26	15	·01
,, ..4	Peterhead (Forehill Works) ..	Mar. 5	Mar. 19	15	..	..	..	..	Feb. 25	Mar. 19	23	·06
		..	..	..	..	..	..	..	July 11	July 27	17	·03
Morayshire 2	Gordon Castle	Mar. 5	Mar. 19	15	Feb. 21	Mar. 30	38	·31	Feb. 25	Mar. 30	34	·13
		..	..	..	..	..	..	..	July 12	July 27	16	·01
Inverness ..3	Cluny Castle.....	Mar. 3	Mar. 19	17	Feb. 10	Mar. 29	48	·46	Mar. 3	Mar. 29	27	·12
,, 17	Fort William	Feb. 26	Mar. 19	22	..	..	..	..	Feb. 23	Mar. 19	25	·05
,, 18	Skye (Portree)	Feb. 22	Mar. 19	26	Feb. 10	Mar. 19	38	·33	Feb. 22	Mar. 19	26	·00
Ross & Cromarty. 3	Fortrose	..	..	..	Jan. 10	Mar. 29	79	·79	Jan. 30	Feb. 18	20	·08
		..	..	..	..	..	..	..	Feb. 21	Mar. 29	37	·10
		..	..	..	..	..	..	..	July 12	July 26	15	·03
,, 8	Loch Torridon (Bendamph) ..	Feb. 22	Mar. 19	26	Feb. 10	Mar. 19	38	·26	Feb. 22	Mar. 19	26	·00
,, 10	Stornoway	..	..	..	Feb. 10	Mar. 20	39	·30	Feb. 21	Mar. 19	27	·06
Sutherland 1	Lairg	Mar. 5	Mar. 19	15	..	..	..	..	Mar. 5	Mar. 19	15	·00
Caithness ..3	Thurso (Buckies).....	Mar. 5	Mar. 20	16	Feb. 23	Mar. 29	35	·28	Feb. 24	Mar. 20	25	·16
IRELAND.												
Co. Cork ..6	Dunmanway (The Rectory)...	Feb. 27	Mar. 18	20	..	..	..	..	Feb. 27	Mar. 19	21	·03
,, ..7	Glanmire (Lota Lodge)	Feb. 26	Mar. 18	21	..	..	..	..	Feb. 26	Mar. 19	22	·01
,, ..9	Mallow (Longueville)	..	..	..	..	..	..	..	Feb. 26	Mar. 19	22	·02
		..	..	..	..	..	..	..	June 16	July 2	17	·04
		..	..	..	..	..	..	..	Sept. 1	Sept. 16	16	·03

* At least 15 days, none credited with ·01 in. or more. † At least 29 days, with an average not exceeding ·01 in.
‡ At least 15 days, none credited with ·04 in. or more.

TABLE VIII.—*Droughts and Dry Spells in* 1929—(*con.*).

County and River Division.	Station.	Absolute Droughts.*			Partial Droughts.†				Dry Spells.‡			
		Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Rain.	Began.	Ended,	Lasted.	Rain.
				days			days	in.			days	in.
Co. Kerry 3	Cahirciveen (Valentia Obsy.)..	Feb. 28	Mar. 18	19	..	..	..	..	Feb. 27	Mar. 19	21	·06
Co.Waterford 3	Waterford (Brook Lodge)	Feb. 26	Mar. 19	22	..	..	..	..	Feb. 26	Mar. 19	22	·00
		Mar. 25	April 13	20	..	..	..	..	Mar. 25	April 13	20	·00
Co.Tipperary 1	Nenagh (Castle Lough)	Feb. 26	Mar. 19	22	..	..	..	..	Feb. 26	Mar. 19	22	·00
,, 3	Cashel (Ballinamona)	Feb. 26	Mar. 19	22	..	..	..	..	Feb. 26	Mar. 19	22	·00
		..	..	..	..	..	..	..	June 16	July 3	18	·06
Co.Limerick 2	Foynes (Coolnanes)	Feb. 26	Mar. 19	22	..	..	..	..	Feb. 26	Mar. 19	22	·00
		..	..	..	..	..	..	..	Sept. 1	Sept. 16	16	·05
Co. Wexford 4	Gorey (Courtown House)	Feb. 27	Mar. 19	21	..	..	..	..	Feb. 26	Mar. 19	22	·01
		..	..	..	Mar. 21	April 26	37	·36	Mar. 25	April 15	22	·06
		June 16	July 3	18	..	..	..	..	June 16	July 3	18	·00
		..	..	..	Aug. 17	Sept. 27	42	·36	Sept. 1	Sept. 27	27	·02
Leix (Queen's Co.) 2	Abbey Leix (Blandsfort)	Feb. 27	Mar. 19	21	..	..	..	..	Feb. 26	Mar. 19	22	·03
		..	..	..	..	..	..	..	April 9	April 24	16	·01
		..	..	..	..	..	..	..	June 16	July 3	18	·05
Co. Dublin 2	Dublin (FitzWilliam Square)	Feb. 27	Mar. 19	21	Feb. 21	April 25	64	·63	Feb. 26	Mar. 19	22	·01
		..	..	..	..	..	..	..	April 9	April 25	17	·06
		..	..	..	Aug. 24	Sept. 27	35	·35	Aug. 31	Sept. 27	28	·11
Co. Meath 4	Kells (Headfort)	Feb. 27	Mar. 19	21	..	..	..	..	Feb. 27	Mar. 19	21	·00
		..	..	..	..	..	..	..	April 9	April 24	16	·05
Co. Westmeath 1	Moate (Coolatore)	Feb. 27	Mar. 19	21	..	..	..	..	Feb. 26	Mar. 19	22	·01
		..	..	..	..	..	..	..	April 9	April 24	16	·05
Co.Longford 2	Castle Forbes Gardens	Feb. 26	Mar. 19	22	..	..	..	..	Feb. 26	Mar. 19	22	·00
Co. Galway 3	Ballynahinch Castle	Feb. 26	Mar. 20	23	..	..	..	..	Feb. 26	Mar. 20	23	·00
Co. Mayo ..4	Mallarany	Feb. 26	Mar. 19	22	..	..	..	..	Feb. 26	Mar. 19	22	·00
Co. Sligo ..2	Collooney (Markree Obsy.) ..	Feb. 27	Mar. 19	21	..	..	..	..	Feb. 26	Mar. 19	22	·01
Co. Cavan ..1	Belturbet (Cloverhill)	Feb. 26	Mar. 19	22	..	..	..	..	Feb. 26	Mar. 19	22	·00
Co. Down ..2	Seaforde	..	..	..	..	..	..	..	Feb. 27	Mar. 20	22	·09
Co. Antrim 5	Ballymena (Harryville)	..	..	..	..	..	..	..	Feb. 26	Mar. 19	22	·06
Co. Tyrone 3	Omagh (Edenfel)	Feb. 27	Mar. 19	21	..	..	..	..	Feb. 26	Mar. 19	22	·02
Co. Donegal 3	Milford (The Manse)	Feb. 26	Mar. 19	22	..	..	..	..	Feb. 25	Mar. 19	23	·03
,, 5	Killybegs (Rockmount)	Feb. 27	Mar. 19	21	..	..	..	..	Feb. 27	Mar. 19	21	·00

* At least 15 days, none credited with ·01 in. or more. † At least 29 days, with an average not exceeding ·01 in.
‡ At least 15 days, none credited with ·04 in. or more.

4. RAIN SPELLS AND WET SPELLS IN 1929.

The definitions of the terms " rain spell " and " wet spell " as used in this section, are analogous to those of the terms " absolute drought " and " dry spell," which are used in the previous section. Thus :—

A **Rain Spell** is a period of at least 15 consecutive days to each of which is credited ·01 inch of rain or more.

A **Wet Spell** is a period of at least 15 consecutive days to each of which is credited ·04 inch of rain or more.

In other words, a *rain spell* contains at least 15 consecutive rain-days, and a *wet spell* contains at least 15 consecutive wet days.

Table XI contains particulars of all rain spells* and wet spells* during 1929 which were reported from the 100 selected stations of Table V. Stations from which no rain or wet spells were reported are omitted from this table. The number of stations so omitted is 19. Tables IX and X give comparative statistics concerning the rain spells since 1903 and the wet spells since 1917 respectively.

In 1929, the total number of rain spells at the 100 stations was 157 or 17 less than the average. The mean duration of the rain-spells was 21 days, exactly the average. The mean rain per day during the rain spells was consequently in excess of the average, in fact the

* The precise procedure adopted in the allocation of rain spells or wet spells which cover parts of two years is set out in the footnote on p. 25 *British Rainfall*, 1926.

mean value of ·32 inch is the largest in any year since comparable statistics became available in 1903. Rain spells occurred at 81 stations, i.e., at more stations than in any year except 1923 and 1903, with 83 and 89 respectively, and 1916 and 1911 with exactly the same number. So the feature of the rain spells of 1929 was that they were experienced nearly everywhere in the British Isles. They were, however, less frequent than usual in many districts and the total fall during these rain spells was greater than usual.

The longest rain spell in Table X occurred at Barnstaple in North Devon, lasting 57 days from November 5th to December 31st, when 15·36 inches was recorded. The most striking rain spells were those at Treherbert in Glamorgan and at Holne on Dartmoor, which gave 31·57 inches in 27 days and 29·12 inches in 28 days respectively. At the former station as much as 3·80 inches occurred on November 19th, but the fall of 5·25 inches on November 11th (see Section 7) was not included in the rain spell.

Although the wet spells occurred at fewer stations than usual, the total number at the 100 stations was 59 or 4 more than the average. The mean rain per day was greater than in most years. The longest wet spell occurred at Loch More (Achfary) in Sutherlandshire, lasting 33 days from August 8th to September 9th, unusually early in the year.

The most widespread rain spell covered the last half of November and first half of December. Rain spells were rare in the first 6 months of the year. Mull and Tiree, in the west of Argyllshire, experienced a rain spell from January 24th to February 11th and a rain spell covering the first three weeks of February occurred in the west of Ireland. The north-west of Scotland experienced an unusual rain spell during the middle of June and again in the middle of August. The latter occurred also in part of the north of Ireland. Rain spells in October were fairly common in both Scotland and Ireland, and in December in Scotland.

Table IX.—*Comparative Table of Rain Spells* at 100 Stations, 1903-1929.*

Year.	No. of Rain Spells.	DURATION OF SPELLS				STATIONS WITH			
		Mean.		Greatest.					
		Days.	Mean rain per day.	Days.	Mean rain per day.	None.	1 or 2.	3 or 4.	5 or more
			in.		in.				
1903	282	22	·28	52	·51	11	41	26	22
1904	152	19	·22	34	·27	31	51	11	7
1905	121	19	·24	44	·38	45	39	12	4
1906	125	21	·25	50	·40	38	47	11	4
1907	177	21	·25	45	·17	38	30	18	14
1908	159	19	·24	49	·43	21	59	12	8
1909	110	19	·26	45	·12	36	52	12	0
1910	235	21	·25	64	·30	24	34	25	17
1911	185	22	·29	39	·15	19	50	23	8
1912	198	22	·27	58	·19	29	32	30	9
1913	128	21	·29	64	19	44	34	19	3
1914	150	22	·29	70	·28	30	44	25	1
1915	132	20	·27	38	·25	34	47	16	3
1916	231	20	·29	62	·28	19	41	28	12
1917	152	22	·28	52	·19	30	48	17	5
1918	186	23	·30	56	·21	21	51	19	9
1919	143	20	·26	46	·31	29	53	14	4
1920	165	20	·25	45	·24	32	45	12	11
1921	184	22	·29	45	·25	31	36	25	8
1922	170	21	·26	49	·35	30	42	23	5
1923	222	23	·26	89	·31	17	47	21	15
1924	168	19	·25	54	·23	33	41	18	8
1925	176	19	·29	60	·34	27	43	23	7
1926	194	20	·28	45	·14	21	37	38	4
1927	206	19	·26	42	·19	21	43	26	10
1928	202	24	·27	52	·27	28	43	21	8
1929	157	21	·32	57	·27	19	58	15	8
Average 1903–1929	174	21	·27	52	·27	28	44	20	8

NOTE.—The values previous to 1910 have been increased to the equivalent of 100 Stations for comparison. In the columns headed "Greatest" the figures refer to the selected Stations only.

* At least ·01 in. each day, 15 days or more.

Table X.—*Wet Spells (at least ·04 in. each day, 15 days or more); 100 Stations;* 1917-1929.

Year.	Number of Wet Spells.	Mean Duration.		Longest Spell.		STATIONS WITH			
		Days.	Mean rain per day.	Days.	Mean rain per day.	None.	1 or 2.	3 or 4.	5 or more
			in.		in.				
1917	55	19	·35	31	·46	67	28	3	2
1918	49	21	·40	36	·44	70	26	4	0
1919	49	17	·29	33	·34	66	29	5	0
1920	47	18	·37	31	·61	75	17	8	0
1921	59	20	·41	29	·32	69	22	9	0
1922	65	20	·36	42	·28	64	29	7	0
1923	62	20	·36	42	·39	73	17	8	2
1924	30	18	·34	24	·37	79	19	2	0
1925	55	17	·42	31	·18	67	27	6	0
1926	60	19	·37	30	·48	62	32	6	0
1927	39	18	·35	24	·29	74	22	4	0
1928	87	20	·40	39	·29	62	21	17	0
1929	59	19	·41	33	·40	59	36	4	1
Average 1917–1929	55	19	·37	33	·37	68	25	6	0

Table XI.—*Rain Spells and Wet Spells in* 1929.

County and River Division.	Station.	Rain Spells.*				Wet Spells.†				Max. in a Day during Rain Spells.	
		Began.	Ended.	Lasted.	Total Rain.	Began.	Ended.	Lasted.	Total Rain.	Date.	Rain.
ENGLAND AND WALES				days	in.			days	in.		in.
Kent 2	Lympne Aerodrome	Nov. 22	Dec. 15	24	6·58	..	..	..	..	Nov. 28	·62
Sussex 3	Patcham (Brighton W.W.) ...	Nov. 22	Dec. 11	20	6·64	..	..	..	..	Nov. 27	1·05
Hampshire 1	Ventnor (Royal National Hos.)	Nov. 22	Dec. 15	24	6·92	..	..	..	..	Nov. 27	1·06
,, 7	Selborne (The Wakes)	Nov. 22	Dec. 11	20	11·85	..	..	..	..	Nov. 24	1·63
Berkshire ..5	Upton (Manor House)	Nov. 22	Dec. 14	23	6·96	..	..	..	..	Nov. 23	·70
Northants..4	Eye (Northolm)	Nov. 27	Dec. 11	15	2·36	..	..	..	..	Nov. 28	·41
Essex.....3	Great Wakering.....	Nov. 22	Dec. 12	21	3·33	..	..	..	..	Nov. 27	·48
Norfolk ...1	Gorleston	Nov. 27	Dec. 11	15	1·92	..	..	..	..	Nov. 28	·54
,, ...4	Sporle	Nov. 23	Dec. 11	19	3·12	..	..	..	..	Nov. 29	·47
Wiltshire...3	Larkhill (Sch. of Artillery)....	Nov. 22	Dec. 11	20	8·36	Nov. 22	Dec. 10	19	8·33	Nov. 23	·96
S. Devon...2	Launceston (Polapit Tamar)..	Nov. 18	Dec. 14	27	13·61	Nov. 18	Dec. 11	24	13·27	Nov. 24	1·63
,, ...4	Holne (Church Park Cottage)..	Nov. 18	Dec. 15	28	29·12	Nov. 18	Dec. 10	23	28·31	Nov. 18	3·74
N. Devon ..2	Barnstaple (N. Dev. Athenæum)	Nov. 5	Dec. 31	57	15·36	Nov. 18	Dec. 11	24	8·51	Nov. 24	·99
Cornwall...2	St. Austell (Trevarna)	Nov. 18	Dec. 15	28	12·87	Nov. 18	Dec. 10	23	12·41	Nov. 24	1·82
Somerset ..1	Bath (Henrietta Park)	Nov. 22	Dec. 15	24	7·47	Nov. 26	Dec. 12	17	5·57	Nov. 24	·90
,, ..3	Angersleigh (Leigh Court)	Nov. 18	Dec. 15	28	13·37	..	..	..	..	Nov. 24	1·46
Hereford- 1 shire.	Ross (Birchlea)	Nov. 22	Dec. 14	23	8·14	..	..	..	..	Nov. 24	1·14
Staffordshire5	Ashbourne (Mayfield House)..	Nov. 22	Dec. 14	23	5·81	..	..	..	..	Nov. 28	·93
Leicester- 4 shire.	Leicester (Stoughton Drive) ..	Nov. 21	Dec. 11	21	4·21	..	..	..	..	Nov. 28	·62
Lincolnshire 3	Horncastle	Nov. 27	Dec. 11	15	2·69	..	..	..	..	Nov. 28	·63
Cheshire ...2	Northwich (Hunts Lock).....	Nov. 23	Dec. 14	22	5·21	..	..	..	..	Nov. 28	·80
North Lan- 5 cashire.	Blackpool (Met. Observatory).	Nov. 18	Dec. 14	27	6·91	Nov. 23	Dec. 14	22	6·15	Dec. 9	·95

* At least 15 days, each credited with ·01 in. or more. † At least 15 days, each credited with ·04 in. or more.

Table XI.—*Rain Spells and Wet Spells in* 1929—(*con.*).

County and River Division.	Station.	Rain Spells.*				Wet Spells.†				Max. in a Day during Rain Spells.	
		Began.	Ended.	Lasted.	Total Rain.	Began.	Ended.	Lasted.	Total Rain.	Date.	Rain.
ENGLAND AND WALES (*con.*).				days	in.			days	in.		in.
Yorkshire W.R. 8	Meltham (Harewood Lodge) ..	Nov. 22	Dec. 14	23	8·50	Nov. 22	Dec. 14	23	8·50	Nov. 28	·88
,, E.R. 3	Hull (Pearson Park)	Nov. 26	Dec. 14	19	2·43	..	..	..	..	Nov. 28	·84
,, N.R. 1	West Witton (Ivy House)	Nov. 22	Dec. 13	22	5·69	Nov. 22	Dec. 11	20	5·55	Nov. 25	·61
,, ,, 2	Felixkirk (Mount S. John)....	Nov. 23	Dec. 12	20	3·24	..	..	..	..	Nov. 28	·65
Durham ...2	Sunderland (W. Hendon House)	Nov. 23	Dec. 8	16	1·94	..	..	..	..	Nov. 30	·35
Cumberland 1	Geltsdale.....	Nov. 22	Dec. 13	22	4·03	..	..	..	..	Dec. 8	·78
Westmorland. 2	Grasmere (The Wray)	July 27	Aug. 11	16	9·95	..	..	..	..	July 30	2·00
		Sept. 27	Oct. 11	15	7·61	..	..	..	..	Oct. 7	1·51
		Oct. 13	Oct. 30	18	6·20	..	..	..	..	Oct. 23	2·20
		Nov. 1	Nov. 15	15	12·12	..	..	..	..	Nov. 11	2·62
		Nov. 18	Dec. 15	28	16·70	Nov. 22	Dec. 14	23	12·43	Nov. 19	2·63
Glamorgan .6	Treherbert (Tyn-y-waun).....	Nov. 18	Dec. 14	27	31·57	Nov. 18	Dec. 14	27	31·57	Nov. 19	3·80
Carmarthen 2	Carmarthen (The Friary)	Nov. 18	Dec. 15	28	16·26	Nov. 18	Dec. 11	24	15·74	Nov. 18	2·19
Pembrokeshire. 4	Haverfordwest (Portfield)	Nov. 18	Dec. 14	27	13·56	Nov. 18	Dec. 10	23	13·23	Nov. 18	1·40
Denbighshire. 2	Denbigh (Garn)	July 27	Aug. 11	16	1·68	..	..	..	..	July 31	·71
		Nov. 18	Dec. 14	27	6·70	Nov. 28	Dec. 14	17	4·48	Dec. 6	·88
Merioneth .4	Dolgelly (Bryntirion)	Nov. 18	Dec. 10	23	11·80	Nov. 18	Dec. 10	23	11·80	Nov. 19	1·04
										Nov. 25	
Anglesey ...	Llanerchymedd (Llwydiarth Esgob)	Nov. 18	Dec. 14	27	7·09	Nov. 18	Dec. 14	27	7·09	Nov. 23	·98

* At least 15 days, each credited with ·01 in. or more. † At least 15 days, each credited with ·04 in. or more.

Table XI.—*Rain Spells and Wet Spells in* 1929—(*con.*).

County and River Division.	Station.	Rain Spells.*				Wet Spells.†				Max. in a Day during Rain Spells.	
		Began.	Ended.	Lasted.	Total Rain.	Began.	Ended.	Lasted.	Total Rain.	Date.	Rain.
				days	in.			days	in.		in.
ISLE OF MAN	Douglas (Borough Cemetery)..	Nov. 18	Dec. 10	23	8·02	..	..	..	..	Dec. 6	1·09
CHANNEL ISLANDS											
Guernsey....	St. Peter Port (Grange Road).	Nov. 22	Dec. 15	24	8·04	Nov. 23	Dec. 10	18	7·57	Nov. 27	·94
SCOTLAND											
Wigtown ..3	Stoneykirk (Ardwell House) ..	Oct. 31	Nov. 15	16	3·16	..	..	..	..	Nov. 4	·47
		Nov. 17	Dec. 31	45	11·88	Nov. 18	Dec. 7	20	5·90	Dec. 20	1·30
Dumfries...3	Dumfries (Crichton Inst.)	Nov. 27	Dec. 14	18	3·84	Nov. 27	Dec. 13	17	3·83	Dec. 10	·55
Peebles 1	Edin. W.W (Victoria Lodge)..	July 27	Aug. 11	16	4·50	..	..	..	..	July 31	·65
		Nov. 17	Dec. 14	28	11·27	Nov. 30	Dec. 14	15	7·90	Dec. 11	1·40
Berwick ...4	Duns Castle	July 27	Aug. 10	15	3·97	..	..	..	..	July 31	1·13
Lanarkshire 5	Strathaven (Dungavel).....	July 27	Aug. 11	16	5·34	..	..	..	..	Aug. 10	·91
		Nov. 21	Dec. 15	25	9·35	..	..	..	..	Dec. 11	1·61
		Dec. 17	Dec. 31	15	6·07	..	..	..	..	Dec. 22	1·75
Ayrshire ...6	Maybole (Culzean Castle).....	Nov. 28	Dec. 14	17	4·86	..	..	..	..	Dec. 1	·66
Renfrew ...3	Greenock (Prospect Hill)	Oct. 9	Oct. 25	17	4·59	..	..	..	..	Oct. 25	·85
		Nov. 17	Dec. 14	28	11·04	Nov. 29	Dec. 14	16	8·00	Dec. 11	1·09
Buteshire ..3	Dougarie Lodge	Sept. 26	Oct. 10	15	3·31	..	..	..	..	Oct. 1	·64
		Oct. 31	Nov. 14	15	5·15	..	..	..	..	Nov. 1	1·14
		Dec. 1	Dec. 21	21	9·18	..	..	..	..	Dec. 11	·94
										Dec. 20	
Argyllshire 6	Dalmally (Manse of Glenorchy)	Nov. 29	Dec. 15	17	10·78	Dec. 1	Dec. 15	15	10·73	Dec. 1	1·44
,, 14	Islay (Eallabus)	Aug. 5	Aug. 25	21	4·73	Aug. 5	Aug. 22	18	4·65	Aug. 10	·97
		Sept. 26	Oct. 11	16	4·88	Sept. 26	Oct. 10	15	4·86	Oct. 5	·77
		Oct. 13	Oct. 29	17	5·27	Oct. 13	Oct. 29	17	5·27	Oct. 27	·87
		Oct. 31	Nov. 14	15	5·17	Oct. 31	Nov. 14	15	5·17	Nov. 10	·68
		Nov. 18	Dec. 31	44	15·47	Dec. 1	Dec. 17	17	6·08	Nov. 18	1·74

* At least 15 days, each credited with ·01 in. or more.

† At least 15 days, each credited with ·04 in. or more.

Table XI.—*Rain Spells and Wet Spells in* 1929—(*con.*).

County and River Division.	Station.	Rain Spells.*				Wet Spells.†				Max. in a Day during Rain Spells.	
		Began.	Ended.	Lasted.	Total Rain.	Began.	Ended.	Lasted.	Total Rain.	Date.	Rain.
SCOTLAND (*con.*).				days	in.			days	in.		in.
Argyllshire **14**	Mull (Gruline)	Jan. 24	Feb. 11	19	3·20	..	..	..	..	Jan. 29	·72
		Aug. 7	Aug. 24	18	4·11	..	..	..	..	Aug. 16	·65
		Sept. 26	Oct. 10	15	5·89	Sept. 26	Oct. 10	15	5·89	Oct. 1	1·18
		Oct. 12	Oct. 28	17	6·41	..	..	..	..	Oct. 23	·99
		Oct. 31	Nov. 14	15	6·13	..	..	..	..	Nov. 10	·91
		Nov. 29	Dec. 21	23	11·00	Dec. 1	Dec. 15	15	9·03	Dec. 1	1·89
,, **14**	Tiree (Cornaigmore School) ..	Jan. 24	Feb. 11	19	2·41	..	..	..	..	Jan. 29	·65
		Aug. 8	Aug. 22	15	2·75	..	..	..	..	Aug. 16	·81
		Oct. 8	Oct. 25	18	2·93	..	..	..	..	Oct. 13	·45
		Oct. 31	Nov. 14	15	3·38	Oct. 31	Nov. 14	15	3·38	Nov. 4	·71
		Nov. 21	Dec. 17	27	5·10	..	..	..	..	Dec. 6	·55
Perth **11**	Aberfeldy (Dall Avon)	Nov. 18	Dec. 15	28	9·19	Nov. 28	Dec. 14	17	6·59	Dec. 5	1·29
Kincardine **3**	Banchory (Invercannie)	Nov. 18	Dec. 8	21	5·09	..	..	..	..	Dec. 4	·70
Aberdeen ..**1**	Balmoral (Castle Gardens)....	Nov. 27	Dec. 14	18	4·14	..	..	..	..	Dec. 5	·79
Inverness ..**3**	Cluny Castle.....	Sept. 26	Oct. 17	22	5·03	..	..	..	..	Oct. 2	·79
		Oct. 19	Nov. 14	27	4·69	..	..	..	..	Oct. 23	·76
		Nov. 21	Dec. 15	25	6·62	Dec. 1	Dec. 15	15	5·26	Dec. 5	·91
,, **17**	Fort William	June 8	June 23	16	3·53	June 8	June 22	15	3·52	June 15	·65
		Aug. 8	Aug. 24	17	3·76	..	..	..	..	Aug. 21	·62
		Sept. 26	Oct. 29	34	15·50	..	..	..	..	Oct. 13	2·15
		Nov. 29	Dec. 21	23	11·85	Nov. 30	Dec. 21	22	11·84	Dec. 13	1·41
,, **18**	Skye (Portree)	June 8	June 23	16	3·17	..	..	..	..	June 11	·62
		Aug. 7	Aug. 25	19	4·34	..	..	..	..	Aug. 16	1·19
		Aug. 27	Sept. 15	20	4·88	..	..	..	..	Aug. 30	·70
		Sept. 17	Oct. 7	21	8·86	..	..	..	..	Oct. 5	1·60
		Oct. 9	Oct. 29	21	8·87	Oct. 9	Oct. 24	16	7·60	Oct. 12	1·82
		Oct. 31	Nov. 14	15	5·84	..	..	..	..	Nov. 10	·83
		Nov. 29	Dec. 21	23	7·72	Nov. 30	Dec. 17	18	6·45	Dec. 1	·88

* At least 15 days, each credited with ·01 in. or more.

† At least 15 days, each credited with ·04 in. or more.

Table XI.—*Rain Spells and Wet Spells in* 1929—(*con.*).

County and River Division.	Station.	Rain Spells.*				Wet Spells.†				Max. in a Day during Rain Spells.	
		Began.	Ended.	Lasted.	Total Rain.	Began.	Ended.	Lasted.	Total Rain.	Date.	Rain.
				days	in.			days	in.		in.
SCOTLAND (*con.*).											
Ross and Cromarty. **8**	Loch Torridon (Bendamph) ..	June 8	June 24	17	3·75	..	..	..	..	June 11	·60
		Aug. 9	Aug. 24	16	4·97	Aug. 9	Aug. 24	16	4·97	Aug. 17	·86
		Sept. 26	Oct. 29	34	15·49	Oct. 5	Oct. 29	25	11·35	Oct. 13	2·02
		Dec. 1	Dec. 21	21	10·06	Dec. 1	Dec. 21	21	10·06	Dec. 2	1·29
,, **10**	Stornoway	Aug. 8	Sept. 6	30	6·75	Aug. 10	Aug. 28	19	3·98	Sept. 6	·81
		Sept. 17	Oct. 3	17	4·77	Sept. 17	Oct. 3	17	4·77	Oct. 1	·75
		Oct. 5	Nov. 14	41	9·60	Oct. 31	Nov. 14	15	3·59	Oct. 6	1·37
		Dec. 1	Dec. 15	15	4·41	Dec. 1	Dec. 15	15	4·41	Dec. 8	·53
Sutherland **5**	Loch More (Achfary)	June 11	June 25	15	4·25	..	..	..	..	June 21	·94
		Aug. 8	Sept. 10	34	13·21	Aug. 8	Sept. 9	33	13·20	Sept. 6	1·75
		Sept. 17	Oct. 3	17	7·67	..	..	..	..	Sept. 19	2·08
		Oct. 5	Nov. 14	41	20·64	Oct. 5	Oct. 31	27	13·33	Oct. 16	2·04
		Dec. 1	Dec. 20	20	7·57	Dec. 2	Dec. 17	16	7·09	Dec. 11	1·18
Caithness ..**3**	Thurso (Buckies)	Oct. 1	Oct. 23	23	5·38	..	..	..	..	Oct. 6	1·34
IRELAND.											
Co. Cork ..**6**	Dunmanway (The Rectory) ..	Nov. 1	Nov. 15	15	5·70	..	..	..	..	Nov. 10	1·36
		Nov. 17	Dec. 14	28	15·01	..	..	..	..	Dec. 1	1·50
,, ..**7**	Glanmire (Lota Lodge)	Feb. 5	Feb. 23	19	6·92	..	..	..	..	Feb. 20	1·35
		July 26	Aug. 9	15	2·17	..	..	..	..	July 27	·62
		Nov. 21	Dec. 14	24	8·61	Nov. 27	Dec. 11	15	6·75	Dec. 1	·91
,, ..**9**	Mallow (Longueville)	Feb. 7	Feb. 23	17	6·05	..	..	..	..	Feb. 7	·91
										Feb. 20	
		Oct. 31	Nov. 15	16	3·65	..	..	..	..	Nov. 9	·67
		Nov. 17	Dec. 11	25	8·47	..	..	..	..	Dec. 4	1·02

* At least 15 days, each credited with ·01 in. or more.

† At least 15 days, each credited with ·04 in. or more.

Table XI.—*Rain Spells and Wet Spells in* 1929—(*con.*).

County and River Division.	Station.	Rain Spells.*				Wet Spells.†				Max. in a day during Rain Spells.	
		Began.	Ended.	Lasted.	Total Rain.	Begun.	Ended.	Lasted.	Total Rain.	Date.	Rain.
IRELAND. (*con.*).				days	in.			days	in.		in.
Co. Kerry .3	Cahirciveen (Valentia Obsy.)	Feb. 7	Feb. 22	16	5·46	..	..	..	..	Feb. 19	·87
		Sept. 27	Oct. 12	16	4·25	..	..	..	..	Oct. 5	·84
		Oct. 15	Oct. 29	15	2·86	..	..	..	..	Oct. 23	·78
		Oct. 31	Nov. 29	30	9·86	Oct. 31	Nov. 29	30	9·86	Nov. 15	1·13
Waterford..3	Waterford (Brook Lodge)	Feb. 5	Feb. 22	18	7·47	..	..	..	..	Feb. 20	1·70
Tipperary ..1	Nenagh (Castle Lough)	July 27	Aug. 10	15	3·68	..	..	..	..	Aug. 5	·70
,, ..3	Cashel (Ballinamona).....	Nov. 21	Dec. 15	25	6·12	..	..	..	..	Dec. 1	·86
Limerick ..2	Foynes (Coolnanes)	July 27	Aug. 13	18	2·98	..	..	..	..	July 27	·74
		Oct. 31	Nov. 15	16	4·83	..	..	..	..	Nov. 9	·97
		Nov. 22	Dec. 14	23	6·09	..	..	..	..	Dec. 4	·67
Co.Wexford 4	Gorey (Courtown House)	Nov. 21	Dec. 14	24	6·81	..	..	..	..	Dec. 3	·71
										Dec. 6	
Leix (Queen's Co.) 2	Abbey Leix (Blandsfort)	Nov. 15	Dec. 14	30	6·44	..	..	..	..	Dec. 4	·80
										Dec. 6	
Co. Dublin .2	Dublin (Fitz William Square).	Nov. 18	Dec. 14	27	5·14	..	..	..	..	Dec. 4	·70
Co. Meath .4	Kells (Headfort)	Nov. 18	Dec. 6	19	4·03	Nov. 21	Dec. 6	16	3·45	Dec. 6	·68
Co. West- meath .1	Moate (Coolatore)	Oct. 27	Nov. 13	18	2·82	..	..	..	..	Nov. 9	·72
		Nov. 21	Dec. 14	24	3·43	..	..	..	..	Dec. 1	·54
Co. Galway. 3	Ballynahinch Castle	Feb. 7	Feb. 23	17	5·19	Feb. 7	Feb. 22	16	5·16	Feb. 10	·83
		May 31	June 17	18	3·75	May 31	June 16	17	3·73	June 1	·76
		Sept. 26	Oct. 12	17	3·72	..	..	..	..	Oct. 5	·96
		Oct. 14	Oct. 29	16	4·04	Oct. 14	Oct. 29	16	4·04	Oct. 23	·86
		Nov. 30	Dec. 14	15	5·75	..	..	..	..	Dec. 1	1·06
Co. Mayo ..4	Mallarany	Feb. 7	Feb. 23	17	2·66	..	..	..	..	Feb. 10	·57
		July 26	Aug. 17	23	6·63	..	..	..	..	July 27	1·25
		Sept. 26	Oct. 25	30	8·34	..	..	..	..	Oct. 10	1·75

* At least 15 days, each credited with ·01 in. or more.

† At least 15 days, each credited with ·04 in. or more.

Table XI.—*Rain Spells and Wet Spells in* 1929—(*con.*).

County and River Division.	Station.	Rain Spells.*				Wet Spells.†				Max. in a Day during Rain Spells.	
		Began.	Ended.	Lasted.	Total Rain.	Began.	Ended.	Lasted.	Total Rain.	Date.	Rain
IRELAND (*con.*).				days	in.			days	in.		in.
Co. Sligo ..2	Collooney (Markree Obsy.) ...	Oct. 14	Oct. 29	16	2·70	..	..	..	..	Oct. 23	·46
		Oct. 31	Nov. 16	17	4·51	Oct. 31	Nov. 15	16	4·50	Nov. 11	·75
		Nov. 22	Dec. 14	23	4·87	Nov. 23	Dec. 14	22	4·84	Dec. 6	·84
Co. Cavan .1	Belturbet (Cloverhill).....	Aug. 5	Aug. 23	19	2·83	..	..	..	..	Aug. 23	·39
		Sept. 26	Oct. 10	15	4·28	..	..	..	..	Oct. 5	**2·65**
		Nov. 1	Nov. 15	15	2·74	..	..	..	..	Nov. 9	·53
Co. Down ..2	Seaforde	Jan. 28	Feb. 12	16	4·68	..	..	..	..	Jan. 28	·86
		Aug. 1	Aug. 24	24	5·02	..	..	..	..	Aug. 16	·86
		Nov. 18	Dec. 15	28	9·16	Nov. 18	Dec. 10	23	8·87	Dec. 6	1·22
Co. Antrim 5	Ballymena (Harryville)	Nov. 18	Dec. 14	27	5·62	..	..	..	..	Dec. 6	·90
Co. Tyrone 3	Omagh (Edenfel)	July 27	Aug. 11	16	4·20	July 27	Aug. 11	16	4·20	July 31	·90
		Sept. 26	Oct. 11	16	3·88	..	..	..	..	Oct. 5	1·30
		Oct. 27	Nov. 13	18	3·32	..	..	..	..	Nov. 10	·47
		Nov. 21	Dec. 14	24	4·78	..	..	..	..	Dec. 1	·51
										Dec. 6	
		Dec. 17	Dec. 31	15	3·92	..	..	..	..	Dec. 28	·97
Co. Donegal 3	Milford (The Manse)	Sept. 26	Oct. 10	15	2·76	..	..	..	..	Oct. 5	·47
		Oct. 14	Nov. 15	33	6·22	Nov. 1	Nov. 15	15	3·23	Nov. 10	·62
		Nov. 22	Dec. 31	40	8·11	..	..	..	..	Dec. 28	·94
„ 5	Killybegs (Rockmount)	Sept. 26	Oct. 11	16	4·21	Sept. 26	Oct. 10	15	4·20	Oct. 10	1·25
		Nov. 23	Dec. 15	23	6·25	Nov. 23	Dec. 14	22	6·23	Dec. 6	·72

* At least 15 days, each credited with ·01 in. or more.

† At least 15 days, each credited with ·04 in. or more.

5. DURATION OF RAINFALL IN 1929.

The duration of rainfall discussed in this section is defined as the length of time during which rain is falling at a rate not less than 0·1 mm. per hour, *i.e.*, ·004 in. per hour. The tabulations at all the official stations are made according to this convention.

The duration of rainfall is obtained from measurements of the records of autographic gauges. On these records the amount of rain is measured vertically and the duration of the rainfall is measured horizontally in accordance with scales which are printed upon the charts before they are placed in position in the gauges. The pen of an autographic gauge writes a horizontal line on the record during such time as no rain is falling, and it writes a more or less sloping line whenever rain is passing into the receiver of the gauge.

The list of stations reporting duration of rainfall for 1929, as given in Tables XIII and XIV, is appreciably longer than last year. Additional records are included from Eltham, Fulham, Leatherhead, Ramsgate, Manston Aerodrome (a few miles inland from Ramsgate) Strood (Kent), Leyton, Poole, Ross-on-Wye, Liverpool, Sheffield, Cardiff and Kilmarnock. In the majority of cases the records are maintained by the local authorities and are used especially in connection with problems arising from the disposal of flood water. Of the private observers contributing returns for the first time reference should be made to Mr. G. R. Crompton (Leatherhead), Mr. F. J. Parsons (Ross-on-Wye), and Mr. W. Dunbar (Kilmarnock). Mr. Dunbar has had the recording gauge constructed according to his own design and although in general observers are strongly recommended to use a recording gauge of one of the approved patterns, the results in this case seem reliable. The record from Skipton (Town Hall) has temporarily dropped out of the table.

The distribution of the stations in operation at the beginning of 1927 was shown by a map in *British Rainfall*, 1926, p. 36. Central Ireland and northern Scotland are still but sparsely represented, while records of duration from some of the very wet stations in central and northern Wales and the English Lake District would also be particularly valuable.

It is of interest to examine the duration of the rainfall at different places on the same day, as shown in Table XII. The rainfall of most of these days is considered from another aspect in Section 7, *Heavy Falls on Rainfall Days*. On October 5th an unusually large number of stations recorded a rainfall worthy of comment in that section. November 11th was noteworthy particularly for the fall of 8·31 inches in the Rhondda Valley, although rain was general over the country on that day. There were further remarkable heavy falls in the Rhondda Valley on November 18th and 19th.

So far as can be ascertained the number of entries of 20 hours or more is appreciably fewer than is the case in most years, especially of course during the first 9 months of the year. July 28th and August 3rd were conspicuous in many parts of the country as days with relatively large duration for the summer months of 1929. Nevertheless on these days more than half the stations recorded a duration of less than 10 hours.

Table XIII sets out the duration of rainfall expressed in hours at 68 stations in the British Isles, for each month and for the whole year of 1929. In this table the durations at Kew Observatory, Eskdalemuir Observatory, Aberdeen Observatory and Valentia Observatory are expressed for monthly periods commencing both at midnight and at 7 a.m. The station with the highest aggregate duration for the year is Glenleven (Blackwater Dam) with a duration of 1,666 hours. This period is equivalent to about 69 days, or more than one-sixth of the total duration possible. Other stations with high aggregates were Cray Reservoir (Brecon) with 1,359 hours, Eskdalemuir (Dumfries) with 1,250 hours and Glenedra Lodge (Londonderry) with 1,244 hours. The smallest aggregates for the year occurred at or near London (350 hours at Eltham, 379 hours at Fulham, 400 hours at Kew Observatory, 403 hours at Kingston, 404 hours at Palmers Green); at Cardington (Bedford), 385 hours, and in Nottinghamshire (375 hours at Nottingham and 403 hours at Sutton Bonington). The duration of rainfall at these stations was about one-quarter of that at the station with the largest duration, corresponding to only 15 to 17 days or only one twenty-third of the total duration possible.

The largest monthly total given in the table is that of 297 hours at Glenleven (Blackwater Dam) in December, which corresponds to rainfall lasting 12 days out of the 31. The duration of rainfall was less than 10 hours in both March and September at most stations in the southern half of England. At 10 stations the duration in March was less than half-an-hour, while at 7 of these no duration at all was reported.

Table XIV sets out the mean monthly and annual values of rate of rainfall at each of the stations of Table XIII. The values are obtained by dividing the total fall for the month or year by the duration as given in the preceding Table. Stations with high mean rates of rainfall for the year are Lancaster with ·070 in. per hour; Swansea with ·074 in. per hour; and Bolton with ·069 in. per hour. The stations with the lowest mean rates of fall are Manston and Rotherham with ·038 in. per hour. The table shows the usual feature of intense falls in the summer months, especially in July, August and September. The difference between the rate during the three months, October, November and December, and that during the first three months of the year is, however, much more striking than is usually the case.

Table XII.—*Rainfall Duration. Certain Days in 1929.*

*The periods of 24 hours to which these values refer commence at 9 a.m. G.M.T. on the dates stated, for all stations except those marked * for which they commence at 7 a.m. G.M.T.*

County.	Station.	Jan 28	Jan 29	May 4	May 5	July 28	Aug 3	Oct 5	Nov 11	Nov 18	Nov 19	Nov 24	Nov 27	Dec 28
		hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.
London	Eltham	3	3	4	11	5	0	3	11	4	†	7	11	6
,, ...	Fulham	2	5	6	16	7	0	2	15	5	0	6	14	*5*
,, ...	Camden Square	3	3	7	15	8	0	3	13	6	1	6	13	6
Surrey	Croydon*	4	6	7	19	6	0	2	17	5	5	9	12	12
,, ...	Leatherhead	..	..	10	16	8	1	3	18	8	3	1!	14	10
,, ...	Kingston.....	5	5	9	5	6	0	0	18	3	1	11	14	5
,, ...	Kew Obsy*	3	5	6	16	6	0	2	13	5	2	5	11	6
Kent	Dover	2	5	2	13	5	0	1	13	1	2	3	8	7
,, ...	Lympne*	5	11	3	19	6	0	†	15	3	3	5	7	9
,, ...	Ramsgate	1	5	1	12	5	0	0	*15*	2	0	9	8	5
,, ...	Manston*	1	6	1	13	6	†	0	15	2	0	6	6	7
,, ...	Strood	3	1	9	21	7	0	2	16	6	1	10	13	9
Sussex	Eastbourne	12	12	6	*17*	12	1	3	13	7	†	*8*	*10*	8
,, ...	Hellingly*.....	11	7	5	17	10	0	1	18	6	3	8	11	9
Hampshire ..	Calshot*	5	8	9	18	9	1	5	17	6	1	10	14	13
,, ..	Worthy Down	7	6	11	19	9	1	5	17	9	7	9	14	14
,, ..	Petersfield	4	8	13	19	10	2	7	18	10	3	12	15	16
,, ..	South Farnborough	3	9	8	18	7	0	6	17	7	7	9	13	12
Middlesex ...	Palmers Green	4	4	6	13	7	0	3	14	6	2	6	13	8
Hertford	Rothamsted	*3*	*6*	10	12	10	†	5	15	8	6	8	14	9
Oxford	Leafield*	6	7	14	12	11	*20*	9	17	11	7	9	12	14
,, ...	Upper Heyford*	6	7	13	11	11	10	8	13	10	6	9	8	13
Bedford.....	Cardington*.....	7	5	6	5	7	1	3	11	5	3	6	3	7
Essex	Leyton	2	3	6	18	6	0	3	12	6	1	5	14	6
Suffolk	Copdock	9	7	15	4	7	0	0	11	5	1	5	7	6
,, ...	Felixstowe*	5	13	1	8	7	0	0	9	4	0	6	5	6
Wiltshire	Porton	9	2	15	16	10	2	6	15	11	10	15	16	11
Dorset	Poole	12	1	11	15	9	2	5	5	11	3	9	16	10
Devon	Plymouth Park	15	5	15	20	14	18	12	21	14	16	13	16	13
Cornwall	Falmouth Obsy.	18	4	19	18	17	17	16	16	18	12	12	17	14
Hereford	Ross-on-Wye	7	4	9	15	11	15	16	15	10	11	9	10	12
Stafford.....	West Bromwich	10	2	6	13	5	16	13	13	8	5	9	9	7
,, ...	Ashbourne	10	8	10	11	11	16	14	17	12	8	9	12	13
Lincoln.....	Cranwell*.....	7	4	4	8	4	8	5	11	7	5	4	1	6
Nottingham ..	Sutton Bonington ..	6	3	3	14	2	9	13	10	8	5	5	4	8
,, ..	Nottingham	10	4	7	11	4	11	11	11	8	4	3	3	8
,, ..	Hodsock Priory.....	*10*	4	2	6	5	8	13	12	5	4	5	2	9
Cheshire	Bidston Obsy.	9	3	11	6	9	5	5	11	4	5	2	3	10
Lancashire .	Liverpool	8	3	11	6	13	12	5	13	3	7	2	1	10
,, ..	Bolton	..	5	14	5	11	9	9	16	7	8	1	3	15
,, ..	Nelson	*11*	4	15	5	9	7	8	14	8	9	2	5	17
,, ..	Leyland	10	3	*15*	4	7	*9*	8	*11*	8	7	2	3	*17*
,, ..	Southport	7	3	14	4	5	3	5	11	5	6	1	2	12
,, ..	Lancaster	6	4	10	3	10	9	5	14	4	9	1	2	17
Yorks, W.R...	Rivelin	9	3	7	7	4	7	14	15	7	4	8	6	15
,, ..	Rotherham	11	5	3	6	0	*6*	*7*	*14*	11	8	9	4	17
,, ..	Haworth	10	4	15	4	7	9	9	15	11	11	2	6	20
,, ..	Earby	12	5	13	4	11	6	7	14	5	6	2	2	17
Yorks, N.R...	Felixkirk	*10*	3	7	*3*	7	4	10	6	7	3	2	6	12
Glamorgan ..	Swansea	17	12	14	11	16	17	11	17	17	12	9	15	13
,, ..	Cardiff	16	14	16	17	15	19	20	16	15	9	11	15	11
Brecon	Cray Reservoir	10	8	17	16	23	24	16	21	16	21	10	15	19
Flint	Sealand*	10	1	7	7	6	6	5	10	3	4	5	3	10
Anglesey	Holyhead*	10	5	7	4	9	7	8	14	12	12	2	3	12
Dumfries	Eskdalemuir Obsy*	9	22	10	3	12	12	9	10	8	10	6	6	15
Ayr	Kilmarnock	6	15	12	3	9	3	7	10	5	5	2	2	7
Renfrew	Renfrew*	7	20	3	1	11	3	10	8	8	8	3	3	11
,, ...	Greenock	4	17	5	2	3	2	10	8	12	9	4	1	14
Berwick	Swinton House	7	9	5	2	5	0	2	2	3	1	0	2	9
Argyll	Blackwater Dam	0	11	2	†	3	10	6	8	15	14	8	9	21
Fife	Leuchars*	5	7	11	2	8	1	4	5	10	4	0	1	9
Aberdeen	Aberdeen Obsy*	5	11	4	1	8	2	9	5	9	3	1	†	6
Shetland	Lerwick Obsy.	*5*	13	11	4	0	9	6	14	3	9	1	0	8
Co. Cork	Cork	11	2	5	3	5	2	8	7	11	7	5	7	12
Co. Kerry ...	Valentia Obsy.*	10	5	3	†	7	6	9	14	9	6	4	3	12
Co. Armagh ..	Armagh Obsy.	11	5	5	0	8	0	13	7	9	3	4	6	14
Co. Antrim ..	Aldergrove*.....	11	7	7	†	12	2	10	4	6	2	5	4	*10*
Co. Londonderry	Glenedra Lodge	9	5	3	†	13	1	*13*	6	17	*11*	5	9	23

† In these cases the duration of rainfall is small, being less than ·5 hr.

Italic type figures indicate evaluations partly estimated.

Table XIII.—*Duration of Rainfall at 68 Stations in the British Isles during 1929.*

For the purposes of this table the month commences either at 7 a.m. or 9 a.m. G.M.T. on the first day of the month and ends at the same hour on the first day of the following month.

County and River Division.	Station.	Pattern of Gauge.	Height above Sea.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
			ft.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.
London 1	Eltham (High Street)	Hyeto	245	28	10	0	35	26	15	20	19	4	34	77	82	350
,, ...2	Fulham (Bishops Park) ...	Hyeto	15	31	10	0	40	32	14	24	19	4	39	88	78	379
,, ...2	St. Pancras (Camden Square)	Hyeto	111	32	22	0	46	35	19	26	23	4	43	87	87	424
Surrey 4	Croydon Aerodrome	Nat.Syphon	245	37	26	2	40	39	25	26	26	4	47	111	116	499
,, ...5	Leatherhead (Dunard Lodge)	Nat.Syphon	233	(45)	(20)	1	42	37	28	24	26	3	48	108	99	471
,, ...5	Kingston (Sewage Works)	Nat.Syphon	25	33	11	0	38	29	18	31	19	3	47	98	76	403
,, ...5	Richmond (Kew Obsy.) ...	Beckley	18	33	14	1	34	35	20	25	22	4	39	85	88	400
† ,, ...5	,, ,, ...	,,	18	28	19	1	34	35	20	25	22	4	39	83	89	399
Kent.....1	Dover (Waterloo Crescent)	Hyeto	22	31	33	5	21	26	26	16	16	6	54	87	92	413
,, ...2	Lympne Aerodrome	Hyeto	348	55	33	3	37	40	31	25	20	9	59	101	112	525
,, ...2	Ramsgate (East Cliffe).....	Nat.Syphon	81	46	30	14	33	23	29	17	17	8	59	92	110	478
,, ...2	Manston Aerodrome.....	Nat.Syphon	150	41	29	10	36	24	29	21	21	11	60	107	105	494
,, ...4	Strood Waterworks	Nat.Syphon	112	37	15	1	34	39	13	22	15	5	40	100	93	414
Sussex 5	Eastbourne(MotcombeGdns.)	N.&Z.Float	59	48	45	17	38	47	40	27	28	11	82	114	124	621
,, ...5	Hellingly (Burlow)	Hyeto	209	34	24	0	26	40	26	32	29	15	65	120	118	529
Hampshire ..4	Calshot (Seaplane Station)	Nat.Syphon	8	41	41	7	32	55	33	22	29	4	51	119	97	531
,, ...5	Winchester (Worthy Down)	Nat.Syphon	273	36	28	3	31	44	33	25	24	5	52	140	104	525
,, ...6	Petersfield (Stoner Hill) ...	Hyeto	749	33	31	5	28	49	47	34	35	6	69	154	128	619
,, ...8	South Farnborough (R.A.E.)	Hyeto	230	42	31	1	37	43	35	28	28	6	49	129	113	542
Middlesex ...2	Palmers Gn.(Broomfield Pk.)	Casella	138	30	20	0	38	35	17	22	16	5	44	91	86	404
Herts.....2	Harpenden (Rothamsted)	Hyeto	420	35	27	0	48	41	18	21	13	4	47	104	98	456
Oxon 2	Leafield (Wireless Station)	Hyeto	612	43	25	5	40	45	36	23	45	4	54	118	105	543
,, ...3	Upper Heyford	Nat.Syphon	408	46	32	5	47	42	25	24	33	5	55	118	97	529
Bedford.....3	Cardington	Nat.Syphon	137	36	19	2	50	27	20	20	14	3	39	76	79	385
Essex.....1	Leyton (Sewage Works).....	Hyeto	22	27	11	0	39	38	21	26	28	6	45	82	85	408
Suffolk 2	Ipswich (Rookwood, Copdock)	Casella	164	50	18	0	49	30	12	22	17	5	54	70	93	420
,, ...3	Felixstowe Aerodrome	Nat.Syphon	15	56	17	0	53	21	10	20	20	3	49	73	92	414
Wilts 3	Porton (W.D. Ex. Station)	Hyeto	364	37	30	6	24	48	29	21	17	6	38	132	103	491
Dorset 3	Poole	Hyeto	8	35	26	2	27	39	26	16	17	4	51	112	91	446
S. Devon.....2	Plymouth (Freedom Park)	Hyeto	208	53	71	20	30	70	59	30	47	8	75	173	110	746
Cornwall ...2	Falmouth Observatory ...	Beckley	167	73	65	18	31	91	63	34	43	4	100	180	152	854
Hereford ...1	Ross (County Observy.) ...	Hyeto	224	29	43	9	27	43	26	22	24	4	57	137	101	522
Stafford.....3	West Bromwich.....	Hyeto	543	34	10	12	26	37	24	19	31	6	65	111	80	455
,, ...5	Ashbourne (Mayfield Hse.)	Casella	374	60	23	20	35	47	40	46	65	19	77	138	120	690
Lincoln 3	Cranwell Aerodrome.....	Nat.Syphon	237	49	36	10	31	24	31	22	33	11	47	85	85	464
Nottingham 2	Sutton Bonington (Agri. Coll.)	Hyeto	159	34	10	1	30	34	25	18	31	8	47	84	81	403

† Values are for periods ending 24h. on last day of month.

Table XIII.—*Duration of Rainfall at* 68 *Stations in the British Isles during* 1929—(*con.*).

County and River Division.	Station.	Pattern of Gauge.	Height above Sea.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
			ft.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.
Nottingham 5	Nottingham (Trent Lane)	Fernley	83	34	13	1	33	30	21	18	31	6	45	79	64	375
,, 5	Worksop (H dsock Priory)	Halliwell	56	48	17	1	26	23	21	15	40	10	52	80	90	423
Cheshire 3	Birkenhead (Bidston Obs.)	Nat.Syphon	189	52	44	12	23	33	37	46	51	21	62	103	87	571
S. Lancs. ...2	Liverpool (Monument Pl.)	Casella	129	53	29	15	25	40	39	62	70	21	83	111	104	652
,, ...3	Bolton (Queen's Park) ...	Fernley	342	52	46	32	27	51	38	43	82	25	90	122	124	692
C. Lancs. ...1	Nelson (Walton Lane) ...	Hyeto	540	46	28	29	23	59	38	39	85	27	85	119	166	744
,, ...2	Leyland (Worden Hall) ...	Fernley	125	43	33	28	29	51	38	48	90	24	97	114	126	721
,, ...3	Southport (Hesketh Park)	Fernley	39	40	26	18	26	40	32	32	65	20	69	109	95	572
N. Lancs. ...4	Lancaster (Greg Obsy.) ...	Beckley	312	37	34	21	27	46	37	46	107	37	79	102	109	682
W.R. Yorks 7	Sheffield W.W. (Rivelin)...	Hyeto	564	34	13	4	34	36	25	16	37	11	73	109	118	510
,, 7	Rotherham (Aldwarke Sewage Works)	Hyeto	71	61	15	4	32	29	24	13	49	11	62	124	146	570
,, 9	Haworth (Lower Laithe Rs.)	Hyeto	772	57	30	28	37	61	24	25	69	22	84	125	187	749
,, 9	Earby (Sewage Works) ...	Hyeto	426	47	14	17	22	43	28	37	47	22	66	96	146	585
N.R. Yorks. 2	Felixkirk (Mt. St. John) ..	Halliwell	542	75	38	10	33	36	35	31	45	12	49	82	105	551
Glamorgan 3	Swansea (Victoria Park)...	Hyeto	28	55	28	27	30	60	50	51	66	10	98	161	122	758
,, 7	Cardiff (Penylan)	Nat.Syphon	203	62	39	14	18	69	49	33	53	5	82	141	135	700
Brecon 7	Cray Reservoir.....	Halliwell	1044	74	54	45	41	151	109	91	139	40	135	244	236	1359
Flint 1	Sealand Aerodrome	Hyeto	17	53	46	6	28	30	42	45	54	16	56	99	96	571
Anglesey	Holyhead (Salt Island) ...	Hyeto	26	61	62	25	26	59	36	55	67	23	69	136	109	728
Dumfries ...5	Eskdalemuir Observatory	Beckley	794	80	80	33	59	90	108	118	141	47	123	177	194	1250
† ,, ...5	,, ,,	Beckley	794	78	81	30	62	91	107	117	140	50	123	175	194	1248
Berwick ...3	Swinton House	Hyeto	200	51	40	4	43	20	31	49	59	6	43	48	59	453
Ayr.....3	Kilmarnock (Kay Park) ..	‡	132	53	84	25	44	83	82	94	134	43	91	129	149	1011
Renfrew ...2	Renfrew Aerodrome	Hyeto	3	57	100	25	40	70	74	76	116	40	108	133	169	1008
,, ...3	Greenock (Prospect Hill)	Hyeto	200	58	94	22	37	102	76	69	104	43	163	142	189	1099
Argyll 4	Glenleven(BlackwaterDam)	Hyeto	1072	68	106	43	71	119	132	142	161	106	220	201	297	1666
Fife 3	Leuchars (Training Base)	Hyeto	40	37	77	7	39	49	28	51	86	21	51	73	81	600
Aberdeen ...2	Aberdeen (King's College)	Beckley	48	63	83	8	56	35	51	57	68	35	51	64	108	679
† ,, ...2	,, ,,	,,	48	63	83	7	57	35	50	56	70	35	51	63	109	679
Shetland ...3	Lerwick Observatory	Dines	269	83	33	22	31	46	37	30	89	74	125	111	147	828
Cork 7	Cork (University College)	Hyeto	64	46	153	30	31	73	27	72	37	16	51	95	139	770
Kerry 3	Valentia Observatory	Beckley	42	63	123	23	28	54	68	92	74	23	87	133	142	910
† ,, ...3	,, ,, ...	,,	42	62	124	23	29	53	69	92	73	24	83	136	139	907
Armagh.....5	Armagh Observatory	Beckley	209	61	75	17	40	62	48	58	93	28	87	89	134	792
Antrim 5	Aldergrove Aerodrome ...	Hyeto	239	55	94	17	43	70	66	74	124	32	77	96	115	863
Londonderry5	Glenedra Lodge	Hyeto	950	60	90	25	56	83	81	92	155	59	168	171	204	1244

† Values are for periods ending 24h. on last day of month. ‡ Private construction.

Table XIV.—*Mean Rate of Rainfall per hour during* 1929.

County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
		ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.
London 1	Eltham (High Street)	·027	·030	...	·033	·047	·092	·096	·123	·126	·083	·065	·055	·062
,, ...2	Fulham (Bishops Park)	·030	·026	...	·024	·038	·054	·061	·093	·037	·067	·060	·055	·052
,, ...2	St. Pancras (Camden Square)	·030	·027	...	·029	·040	·070	·083	·092	·074	·064	·066	·048	·053
Surrey 4	Croydon Aerodrome	·031	·026	·035	·026	·039	·039	·069	·070	·039	·082	·057	·059	·053
,, ...5	Leatherhead (Dunard Lodge)	·038	·025	·057	·019	·048	·047	·064	·070	·079	·073	·068	·078	·060
,, ...5	Kingston (Sewage Works)	·027	·022	...	·022	·044	·053	·043	·121	·046	·055	·056	·061	·051
,, ...5	Richmond (Kew Observatory)	·027	·026	·026	·031	·036	·043	·104	·099	·043	·070	·058	·049	·054
† ,, ...5	,, ,, ...	·026	·026	·033	·031	·036	·043	·104	·099	·043	·070	·058	·050	·054
Kent 1	Dover (Waterloo Crescent)	·037	·030	·038	·049	·051	·073	·051	·127	·097	·077	·060	·071	·063
,, ...2	Lympne Aerodrome	·021	·023	·047	·025	·044	·044	·052	·119	·113	·059	·056	·064	·052
,, ...2	Ramsgate (East Cliffe)	·023	·033	·021	·027	·035	·033	·042	·128	·050	·052	·038	·040	·039
,, ...2	Manston Aerodrome	·026	·028	·023	·029	·033	·039	·048	·086	·044	·050	·032	·040	·038
,, ...4	Strood Waterworks	·022	·033	·060	·040	·026	·071	·045	·119	·061	·067	·055	·055	·051
Sussex 5	Eastbourne (Motcombe Gardens)	·025	·022	·004	·025	·043	·059	·046	·071	·079	·060	·058	·068	·051
,, ...5	Hellingly (Burlow)	·039	·039	...	·031	·052	·063	·033	·076	·125	·065	·064	·067	·054
Hampshire ...4	Calshot (Seaplane Station)	·023	·017	·029	·026	·036	·032	·055	·056	·067	·087	·057	·061	·049
,, ...5	Winchester (Worthy Down)	·039	·032	·022	·027	·043	·056	·069	·066	·062	·082	·069	·082	·063
,, ...6	Petersfield (Stoner Hill)	·061	·042	·032	·028	·059	·043	·053	·058	·075	·078	·070	·077	·064
,, ...8	South Farnborough (R.A.E.)	·031	·018	·043	·020	·052	·033	·083	·048	·034	·070	·051	·067	·051
Middlesex 2	Palmers Green (Broomfield Park) ...	·041	·037	...	·035	·046	·060	·135	·075	·069	·070	·058	·054	·058
Herts. 2	Harpenden (Rothamsted)	·045	·028	·120	·030	·071	·051	·065	·042	·055	·088	·063	·058	·057
Oxon 2	Leafield (Wireless Station)	·026	·026	·015	·033	·042	·040	·069	·040	·046	·069	·063	·061	·050
,, ...3	Upper Heyford	·028	·016	·013	·030	·041	·039	·059	·048	·067	·063	·058	·058	·048
Bedford.....3	Cardington	·028	·033	·017	·029	·042	·039	·063	·049	·067	·069	·059	·047	·047
Essex.....1	Leyton (Sewage Works)	·027	·042	·063	·029	·050	·052	·064	·066	·054	·059	·062	·046	·051
Suffolk 2	Ipswich (Rookwood, Copdock)	·036	·024	...	·034	·052	·071	·152	·065	·269	·053	·057	·045	·055
,, ...3	Felixstowe Aerodrome	·018	·019	·092	·031	·044	·063	·240	·077	·035	·046	·052	·039	·050
Wilts. 3	Porton (W.D. Experimental Stn.) ...	·036	·029	·014	·040	·034	·041	·062	·058	·103	·100	·059	·067	·056
Dorset 3	Poole	·042	·048	·041	·032	·050	·055	·060	·067	·130	·085	·076	·082	·067
S. Devon 2	Plymouth (Freedom Park)	·065	·043	·038	·027	·049	·045	·059	·074	·057	·085	·085	·080	·067
Cornwall 2	Falmouth Observatory)	·050	·045	·032	·042	·049	·043	·050	·060	·084	·078	·074	·061	·059
Hereford 1	Ross (County Observatory)	·034	·026	·020	·029	·049	·052	·080	·052	·082	·082	·065	·076	·052
Stafford.....3	West Bromwich.....	·044	·047	·015	·031	·055	·078	·083	·065	·121	·067	·063	·069	·062
,, ...5	Ashbourne (Mayfield House)	·035	·028	·017	·028	·043	·034	·054	·060	·050	·054	·057	·050	·047
Lincoln 3	Cranwell Aerodrome	·024	·016	·037	·034	·042	·037	·076	·051	·097	042	·051	·043	·043
Nottingham....2	Sutton Bonington (Agri. Coll.)	·032	·033	·087	·033	·054	·038	·095	·049	·066	·062	·056	·054	·052

† Values are for periods ending 24h. on last day of month.

Table XIV.—*Mean Rate of Rainfall per hour during* 1929—(*con.*).

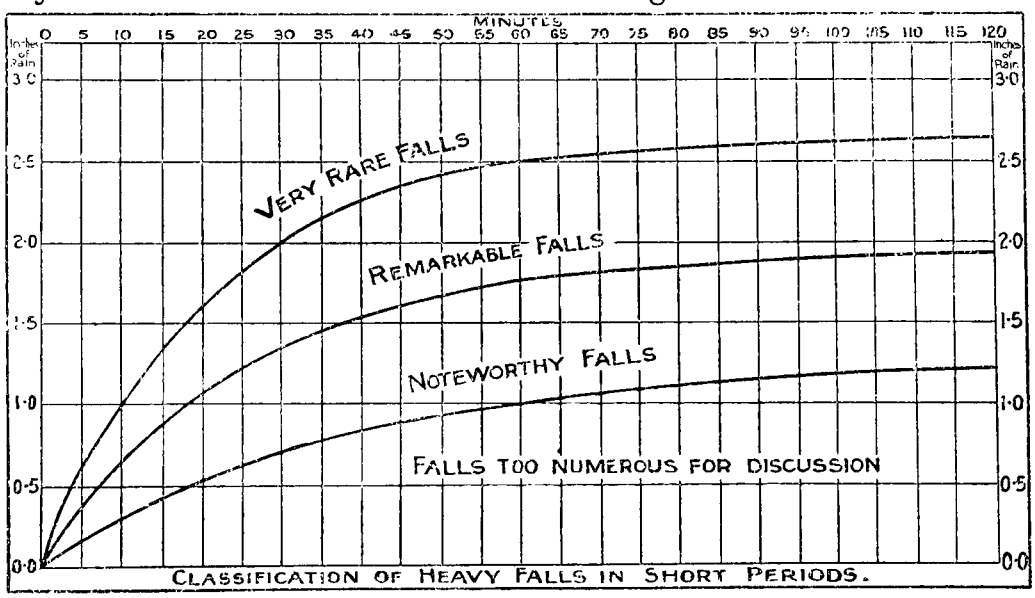
County and River Division.	Station.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
		ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.	ins. per hr.
Nottingham ...5	Nottingham (Trent Lane)	·031	·044	·073	·039	·044	·067	·079	·066	·150	·059	·060	·058	·056
,, ...5	Worksop (Hodsock Priory)	·035	·029	·055	·034	·032	·040	·065	·049	·130	·060	·054	·048	·049
Cheshire 3	Birkenhead (Bidston Observatory)...	·029	·018	·024	·040	·045	·030	·062	·053	·074	·059	·043	·046	·045
S. Lancs. 2	Liverpool (Monument Place)	·037	·032	·037	·041	·044	·031	·043	·044	·104	·054	·047	·048	·046
,, ...3	Bolton (Queen's Park)	·050	·031	·053	·049	·059	·051	·079	·080	·092	·080	·073	·059	·069
C. Lancs. 1	Nelson (Walton Lane)	·047	·032	·050	·045	·047	·054	·084	·056	·079	·069	·063	·067	·060
,, ...2	Leyland (Worden Hall)	·043	·030	·044	·037	·050	·037	·069	·052	·096	·058	·060	·050	·053
,, ...3	Southport (Hesketh Park)	·035	·035	·047	·033	·049	·038	·079	·062	·095	·066	·057	·059	·056
N. Lancs. 4	Lancaster (Greg Observatory)	·055	·030	·055	·060	·053	·062	·090	·066	·084	·085	·083	·068	·070
W.R. Yorks ...7	Sheffield W.W. (Rivelin)	·055	·047	·043	·044	·061	·065	·097	·072	·150	·061	·066	·075	·067
,, ...7	Rotherham (Aldwarke Sewage Wks.)	·029	·047	·013	·029	·042	·044	·079	·033	·108	·054	·035	·031	·038
,, ...9	Haworth (Lower Laithe Res.)	·041	·028	·028	·033	·054	·071	·115	·050	·063	·068	·072	·065	·059
,, ...9	Earby (Sewage Works)	·036	·033	·050	·039	·067	·044	·085	·095	·079	·072	·073	·071	·067
N.R. Yorks.....2	Felixkirk (Mt. St. John)	·039	·030	·023	·039	·046	·054	·069	·065	·064	·056	·041	·043	·046
Glamorgan ...3	Swansea (Victoria Park).....	·058	·059	·067	·040	·060	·051	·085	·064	·110	·083	·091	·081	·074
,, ...7	Cardiff (Penylan).....	·030	·032	·041	·023	·052	·054	·071	·070	·112	·083	·079	·070	·063
Brecon 7	Cray Reservoir	·040	·044	·038	·022	·047	·034	·042	·042	·064	·074	·086	·081	·060
Flint 1	Sealand Aerodrome	·023	·017	·025	·036	·050	·035	·063	·051	·099	·060	·046	·047	·045
Anglesey	Holyhead (Salt Island)	·039	·044	·022	·038	·044	·038	·043	·046	·069	·089	·053	·059	·051
Dumfries 5	Eskdalemuir Observatory	·028	·026	·040	·027	·047	·041	·074	·055	·025	·056	·062	·067	·051
† ,, ...5	,, ,, ...	·028	·026	·036	·029	·047	·041	·071	·054	·029	·056	·062	·067	·051
Berwick 3	Swinton House	·030	·039	·031	·033	·066	·067	·068	·066	·031	·064	·056	·046	·052
Ayr 3	Kilmarnock (Kay Park)	·031	·023	·049	·031	·037	·039	·045	·050	·042	·059	·052	·058	·045
Renfrew 2	Renfrew Aerodrome	·029	·022	·031	·023	·034	·034	·035	·051	·028	·052	·048	·054	·041
,, ...3	Greenock (Prospect Hill)	·050	·029	·068	·034	·052	·053	·092	·066	·043	·054	·074	·082	·061
Argyll 4	Glenleven (Blackwater Dam)	·038	·028	·053	·047	·051	·042	·057	·057	·047	·063	·075	·072	·057
Fife 3	Leuchars (Training Base).....	·023	·018	·062	·028	·058	·051	·055	·036	·024	·042	·050	·046	·040
Aberdeen 2	Aberdeen (King's College)	·029	·021	·026	·031	·066	·036	·067	·041	·036	·063	·056	·061	·045
† ,, ...2	,, ,, ...	·029	·021	·026	·031	·066	·036	·067	·041	·036	·063	·056	·060	·045
Shetland 3	Lerwick Observatory	·031	·025	·041	·041	·037	·067	·039	·050	·055	·062	·055	·047	·048
Cork 7	Cork (University College)	·048	·053	·030	·047	·056	·046	·060	·059	·053	·063	·072	·077	·060
Kerry 3	Valentia Observatory	·057	·057	·059	·061	·065	·050	·058	·069	·067	·072	·074	·082	·065
† ,, ...3	,, ,, ...	·057	·057	·059	·059	·066	·049	·058	·070	·066	·075	·072	·083	·065
Armagh.....5	Armagh Observatory	·021	·030	·020	·021	·044	·039	·043	·059	·051	·063	·040	·044	·043
Antrim 5	Aldergrove Aerodrome	·030	·031	·024	·028	·038	·044	·036	·049	·044	·064	·044	·050	·043
Londonderry 5	Glenedra Lodge	·039	·036	·035	·041	·055	·050	·043	·058	·032	·054	·046	·056	·049

†Values are for periods ending 24h. on last day of month.

6. HEAVY FALLS IN SHORT PERIODS IN 1929.

Heavy falls of rain in short periods are of considerable economic importance, for they are frequently of such intensity as to cause extensive flooding, often accompanied by much surface erosion and structural damage to property. Considerable damage may occur as a result of the accumulation of flood water below the area of heaviest rainfall. The amount of the damage depends on a number of other factors, such as the shape of the catchment area, the nature of the ground and vegetation, whether the water finally flows into the river or sea at high or low tide and the relative positions of the towns. In towns the floods may be aggravated by the failure of the drainage system to cope with the demands made upon it.

Since 1908, this section of *British Rainfall* has contained a classification of intense falls into three categories designated " worthy of notice," " remarkable " and " very rare." The classification has been effected by reference to a diagram of which a copy is reproduced. This diagram indicates by continuous curved lines the upper and lower limits of rainfall which must fall in stated times in order that the fall may be admitted into one of the three categories.



CLASSIFICATION OF HEAVY FALLS IN SHORT PERIODS.

The diagram was prepared almost exclusively from eye observations of rainfall duration and from corresponding measurements of rainfall in ordinary rain-gauges.

On pp. 45, 46 of *British Rainfall*, 1926, reasons were given for supposing that the diagram at its left-hand side does not conform with the actual facts as revealed by records from self-recording gauges. On this account, the data of Table XVI have been divided into two sections, one giving results from eye observations, which are properly comparable with the diagram, and the other giving results from autographic records, which are not truly comparable with the diagram for falls of short duration.

A complete list of the recorded falls of " very rare " intensity of one hour or less is given in Table XV, where readings of ordinary as well as of autographic gauges are included. There are no entries for 1929, the last fall of very rare intensity occurring on September 23rd, 1927.

In Table XVI particulars are given of falls recorded in 1929 which reached at least the intensity " worthy of notice." Unlike Table XV, falls of longer duration than one hour are included, the upper limit being two hours. Not more than one entry is made for the same shower for any station. The entry gives the largest amount recorded with a mean intensity " worthy of notice," " remarkable " or " very rare," as the case may be, an entry at the higher rate being in general preferred. Intense falls of less duration than five minutes have not been included in the table, since in such cases the error is likely to be relatively large and such falls are not usually of practical importance.

In accordance with practice the geographical distribution of the heavy falls of Table XVI is given in the following summary. The analysis probably separates the areas of more frequent and intense falls from those relatively immune, although it cannot be expected to indicate the actual relative frequency of intense falls in each area.

Number of Exceptional Rains of Two Hours' Duration or less.

	England and Wales.								
	S.E.	S.W.	N.E.	N.W.	Total.	Scotland.	Ireland.	British Isles.	Per cent. of records received.
Average 1868–1929	15·9	7·6	4·3	2·5	30·3	2·2	1·5	34·0	1·0
1929 (*a*) ..	13	2	0	0	15	0	1	16	0·3
1929 (*b*) ..	6	1	1	4	12	2	1	15	0·3
1929 Sums ..	19	3	1	4	27	2	2	31	0·6

(*a*) Observations made without autographic rain-gauges.
(*b*) Readings of autographic gauges.

In making the comparison of the two sets of figures with the average values it should be remembered that since 1868 the number of observing stations has steadily increased, while the number of autographic rain-gauges has also increased more especially of recent years. A fairly good indication of the frequency of falls in 1929, in relation to the average, is probably provided by comparing the falls made without autographic rain-gauges with the average. This indicates that intense falls in short periods in 1929, as in 1928, were much less frequent than is usually the case.

Table XV.—*Rainfalls of Very Rare Intensity lasting for One Hour or less.*

Year.	Date.	Div.	Station.	Amount.	Duration		Rate Per Hour
				in.	H.	M.	in.
1912	May 8	XV	Alexandria	·26	0	1½	10·40
1888	Mar. 24	XI	Chepstow, Shirenewton Hall ..	·33	0	2	9·90
1917	July 14	IV	Norwich, Ipswich Road	·47	0	2½	11·28
1893	Aug. 10	VIII	Preston, Corporation Offices ..	1·25?	0	5?	15·00?
1893	June 14	XI	Chepstow, Shirenewton Hall ..	·62	0	5	7·44
1925	May 10	II	Godalming, Charterhouse	·60	0	5	7·20
1906	Aug. 2	II	Guildford, Piccard's Rough ..	·89	0	8	6·68
1892	July 3	VIII	Bolton, The Park	1·00?	0	9?	6·67?
1927	Sept. 23	V	Chagford (Dartmoor S'torium)	1·30	0	10	7·80
1902	May 30	III	Cambridge, Sydney Street ...	1·10	0	10	6·60
1878	June 23	I	St. Pancras, Camden Square..	1·04	0	10	6·24
1912	July 21	VII	Wirksworth, Manor House ..	1·00	0	10	6·00
1918	July 16	II	Purley, Oakwood Avenue	1·10?	0	11	6·00?
1914	Aug. 14	XI	Guernsey, St. Martin's Road..	1·50	0	15	6·00
1878	June 23	I	St. Pancras, Camden Square..	1·43	0	15	5·72
1927	July 11	I	Balham High Road.....	1·50	0	18	5·00
1875	Aug. 7	II	Canterbury, Harbledown	2·12	0	20	6·36
1878	June 23	I	St. Pancras, Camden Square..	1·82	0	20	5·46
1897	June 24	III	Luton Pumping Station	1·65	0	20	4·95
1920	May 29	VIII	Leyland, Worden Hall	1·65	0	20	4·95
1878	June 23	I	St. Pancras, Camden Square..	2·30	0	28	4·93
1880	July 22	XI	Cowbridge, Ash Hall	2·90	0	30	5·80
1915	July 4	XI	Abergavenny, The Chain	2·20	0	30	4·40
1918	July 17	I	Shad Thames Pumping Station	2·07	0	30	4·14
1895	June 27	IX	Middleton-in-the-Wolds	2·00	0	30	4·00
1902	Sept. 10	II	Surbiton, Vronvelin	2·00	0	30	4·00
1920	May 25	IV	Hatfield, Broad Oak, Barrington	2·79	0	45	3·72
1904	July 27	II	Cooling, Broomy Farm	2·66	0	45	3·55
1909	Sept. 29	V	Ilfracombe Reservoir	2·50?	0	45	3·33?
1895	June 26	V	Marlborough	2·71	0	50	3·25
1915	June 30	IV	Mildenhall	2·63	0	50	3·16
1903	July 18	VI	Crewe, Betley Hall	2·53	0	50	3·04
1905	July 9	III	Enfield, Carisbrooke	2·44	0	50	2·93
1911	May 31	II	Epsom, Ashley Road	2·44	0	50	2·93
1901	July 29	II	Wadhurst, Lower Cousley Wood	3·25?	0	55	3·55?
1913	June 17	IV	Elvedon Hall	2·85	0	58	2·95
1901	July 12	II	Maidenhead, Lowood	3·63	1	0?	3·63?
1903	May 30	II	Beddington Corner	3·50	1	0	3·50
1911	May 26	II	Fareham, The Mount	3·00	1	0	3·00
1897	July 21	IV	Ipswich, Bishops Hill	2·95	1	0	2·95
1895	June 26	VI	Worcester, Diglis Lock.....	2·75	1	0	2·75
1909	June 1	XII	Carsphairn, Shiel	2·71	1	0?	2·71?
1873	July 28	XVII	Fettercairn	2·60	1	0	2·60
1889	June 7	II	Tonbridge, Ferndale	2·60?	1	0?	2·60?
1886	July 25	VIII	Sale, Brooklands	2·58	1	0	2·58
1899	July 22	V	Dorchester Water Works	2·56	1	0?	2·56?
1875	July 22	V	Trowbridge, Sunnyside	2·53	1	0	2·53
1875	June 29	III	Cardington	2·50	1	0	2·50
1886	July 25	IX	Wakefield, Stanley Vicarage ..	2·50	1	0	2·50

Table XVI.—*Heavy Falls in Short Periods in* 1929.

County and River Division.	Station.	Date.	Amount.	Duration.	Rate per Hour.
	(a) EYE OBSERVATIONS.		in.	min.	in.
Wiltshire..... 2	Kilmington Rectory	July 31	·35	6	3·50
Berkshire 5	Uffington Vicarage	July 21	·45	15	1·80
Middlesex 1	Willesden (Stonebridge Farm)	July 20	1·00	30	2·00
Armagh..... 2	Bessbrook (The Woodhouse).....	Aug. 6	1·00	35	1·71
Hertford..... 2	Kings Langley (Fir Tree Cottage)	May 24	2·00	45	2·67*
Hertford..... 2	Barnet Sewage Works	July 20	1·03	55	1·12
London..... 2	Hampstead (North Square).....	July 20	2·02	60	2·02*
Middlesex 1	Pinner (Grange Gardens)	July 20	1·31	60	1·31
Hertford..... 2	Rickmansworth	July 20	1·00	60	1·00
S. Devon..... 2	Lifton (Kelly House)	Oct. 5	1·00	60	1·00
Sussex 1	North Mundham Vicarage.....	Sept. 15	1·86	75	1·49*
Hampshire 4	Brockenhurst (Weirs End).....	July 20	1·38	85	·96
Berkshire 3	Broadmoor Asylum.....	May 24	2·03	90	1·35*
Middlesex 1	Hendon Sewage Works	July 20	1·47	90	·98
Hampshire 4	Boldre (Battramsley Close)	July 20	2·35	120	1·17*
Hampshire 8	Hartley Wintney Council Offices	July 20	2·15	120	1·07*

* " Remarkable " fall.

County and River Division.	Station.	Date.	Amount.	Duration.	Rate per Hour.
	(b) AUTOGRAPHIC RECORDS.		in.	min.	in.
Renfrew 2	Renfrew Aerodrome	Aug. 27	·20	6	2·00†
Oxford 3	Upper Heyford	July 20	·20	6	2·00†
Kent 2	Manston Aerodrome	July 4	·20	6	2·00
Dumfries..... 5	Eskdalemuir Observatory	July 5	·20	6	2·00†
Anglesey	Holyhead (Salt Island).....	July 22	·20	6	2·00
C. Lancashire.. 3	Southport (Hesketh Park).....	July 31	·20	6	2·00
Antrim 5	Aldergrove Aerodrome	Aug. 28	·20	6	2·00
Hampshire 5	Worthy Down Aerodrome	Dec. 5	·20	6	2·00
C. Lancashire.. 1	Nelson (Walton Lane)	July 31	·32	8	2·40
S. Devon..... 2	Plymouth (Mount Batten).....	Dec. 5	·39	9	2·60
Nottingham ... 5	Worksop (Hodsock Priory).....	Aug. 6	·36	12	1·80
S. Lancashire.. 3	Bolton (Queen's Park)	Aug. 6	·50	15	2·00
Hampshire 8	South Farnborough (R.A.E.)	July 20	1·06	40	1·59
Suffolk 3	Felixstowe Aerodrome.....	July 4	1·00	45	1·33
Surrey 5	Richmond (Kew Observatory)	July 20	1·41	66	1·28

† Duration probably less than 6 minutes ; at Renfrew probably less than 3 minutes, and at Upper Heyford probably 3½ minutes.

The total number, 31, is considerably fewer than that for any of the four years, 1924 to 1927, when there were generally two or three times as many. The years 1921, 1922, 1923 and 1928 were also noteworthy for few heavy falls in short periods, the annual numbers being 20, 10, 22 and 23 respectively.

As is usually the case the bulk of the entries in Table XVI are for the three months June, July and August. In fact, there are only six entries for the other months. Previously about two-thirds of the total number of intense falls on record have occurred in these three months. Most of the intense falls in 1929 occurred in July, August ranking next with five. The year 1929 was remarkable therefore for the small number of intense falls in short periods in all months but July.

The earliest entries in Table XVI are for the evening of May 24th at Kings Langley, Hertfordshire, and at Broadmoor Asylum near Wokingham. At Jealott's Hill Farm, near Bracknell, in Berkshire, there was an abnormal thunderstorm lasting for 1½ hours, accompanied by hailstones the size of peas, and high winds for a short time. The measurement next morning was 1·57 inches.

The absence of entries of intense rains for June is an unusual feature of the rainfall of 1929.

Entries are given for July 4th, 5th, 20th, 21st, 22nd and 31st, there being no fewer than 12 for July 20th. The heavy rain of July 3rd and 4th in the south-east of England (see Section 7) gave two entries in Table XVI, viz., at Felixstowe and Manston Aerodrome, near Ramsgate. The entry for July 5th at Eskdalemuir Observatory, in Dumfries, was probably due to the storm which gave the heavy rain in the neighbourhood of the Firth of Clyde on July 4th (see Section 7). On this occasion hailstones fell so fast at Eskdalemuir that they blocked the funnel of the rain-gauge, and the rate of precipitation is probably greater than that indicated.

On the 20th July, a line squall brought thunderstorms with exceptionally heavy rain in many places in the south of England. The entries in Table XVI are for stations along a belt from the New Forest to the north of London. The following times are given for the rain :— Barnet, between 19 h. 15 m. and 20 h. 10 m.; Hampstead, 19 h. to 20 h.; Rickmansworth, 19 h. 30 m. to 20 h. 30 m. (the temperature fell from 81·5° F. at 19 h. 30 m. to 65·5° F. by 19 h. 45 m., the roads nearby were flooded 3–4 ft. deep); Brockenhurst, 18 h. 15 m. to

19 h. 40 m. (the observer, Col. C. Mansel-Jones, describes the thunderstorm as the worst he had ever seen in any part of the world) ; Hendon, between 18 h. 45 m. and 20 h. 15 m. ; Boldre, between 18 h. and 20 h. ; Hartley Wintney between 18 h. 40 m. and 20 h. 40 m. Three entries for this storm reached the intensity of " remarkable." The following is extracted from *The Willesden Chronicle :—*

> " . . . . Coming, as it did, at one of the busiest hours of a Saturday, between 18 h. and 19 h. when thousands of people were out of doors, and in the lightest and most summerlike attire, the storm caused great discomfort, and hundreds got wet through before they could reach shelter. . . . The lightning was particularly vivid, and flashed in sheets and with long forks of deadly intensity. A large number of persons were frightened, and others were overcome by the combined effects of heat and storm. Many trams, buses and motors were held up by the accumulated water, and on account of the many wood blocks which became loosened. Many parts of Kilburn, Edgware and Willesden were flooded."

There was a local storm at Uffington Vicarage, Berkshire, on the 21st, when ·45 inch fell between 17 h. 15 m. and 17 h. 30 m., and at Holyhead on the 22nd. Intense rains occurred on July 31st at Kilmington Rectory, Southport and Nelson. At Nelson the ·32 inch fell between 11 h. 40 m. and 11 h. 48 m.

Three entries are included for August 6th, at Bessbrook (Co. Armagh), Worksop and Bolton. At Bessbrook " almost one inch " was recorded between 12 h. 25 m. and 1 h. ; at Bolton, ·36 inch fell between 12 h. 55 m. and 13 h. ; ·50 inch by 13 h. 10 m. and ·75 inch by 13 h. 35 m. The entries for August 27th and August 28th are for small amounts, but of interest because the stations lie outside England, viz., at Renfrew Aerodrome and at Aldergrove Aerodrome near Belfast.

The fall at North Mundham Vicarage, near Chichester, on September 15th occurred between 8 h. 15 m. and 9 h. 30 m. The storm was an isolated one, being preceded by 23 days without rain and followed by 12 days without rain at that station.

The entries for October 5th and December 5th are of interest because of their occurrence towards the end of the year when such falls are rare.

In the preceding section the material has been provided both from autographic records and from eye observations at any of the 5,000 rainfall stations. Another method of dealing with the frequency

Table XVII.—*Number of Days on which specified amounts of Rain fell in specified times during* 1929.

County.	Place.	0·2 inch.				0·4 inch.				1 inch.			
		6 min. or less.	15 min. or less.	30 min. or less.	60 min. or less.	15 min. or less.	30 min. or less.	60 min. or less.	2 hours or less.	1 hour or less.	2 hours or less.	5 hours or less.	24 hours or less.
London	Camden Square	0	2	3	9	0	0	0	1	0	0	0	2
Surrey	Croydon	0	2	4	10	0	1	1	4	0	0	1	4
,,	Kew Observatory	1	2	5	8	1	1	1	3	1	1	1	2
Kent	Lympne	0	2	6	9	0	0	1	2	0	0	0	1
,,	Manston	1	1	2	4	0	1	2	3	0	0	0	0
Hants.	Calshot	0	2	3	7	0	0	1	3	0	0	0	3
,,	Worthy Down	1	6	10	11	0	2	4	4	0	0	1	8
,,	South Farnborough	1	4	5	9	1	2	3	4	1	1	2	4
Oxford	Upper Heyford	1	1	1	10	0	0	0	0	0	0	0	1
Suffolk	Felixstowe	1	2	2	5	1	1	1	2	1	1	1	1
Devon	Mount Batten	1	3	7	15	1	1	5	5	0	0	2	10
Lincoln	Cranwell	0	1	4	6	0	0	0	1	0	0	0	0
Lancashire	Southport	1	2	4	11	0	0	0	1	0	0	0	2
Flint	Sealand	0	1	4	9	0	0	1	1	0	0	0	0
Anglesey	Holyhead	1	3	6	14	0	1	1	6	0	0	0	4
Dumfries	Eskdalemuir	1	2	3	21	0	1	1	8	0	0	2	17
Renfrew	Renfrew	1	1	2	10	0	0	1	4	0	0	0	2
Fife	Leuchars	0	0	1	4	0	0	0	0	0	0	0	1
Aberdeen	Aberdeen	0	0	2	10	0	0	0	3	0	0	2	3
Shetland	Lerwick	0	1	1	6	0	0	1	3	0	0	0	3
Co. Kerry	Valentia Observatory	0	1	4	24	0	0	1	5	0	0	0	8
Co. Armagh	Armagh Observatory	0	0	3	8	0	0	1	2	0	0	1	1
Co. Antrim	Aldergrove	1	2	2	8	0	1	1	2	0	0	1	1

The falls are not necessarily continuous nor are they always confined to one calendar day. If a fall occupies parts of two days it is regarded as belonging to the day which contributes the greater share to the amount of the fall. Not more than one fall of each specified amount is credited to any day; if more than the specified amount fell on any day, that part of it which fell in the shortest time is used for the table.

An entry in any of the first three columns under each of the headings 0·2, 0·4 and 1 inch naturally recurs in the column or columns to the right.

of heavy falls of rain is to confine attention to the stations with autographic records and to examine the traces for all the rain which occurs at these stations. That has been done for the stations set out in Table XVII. In the tabulations on which the classification is based, the shortest interval in which ·2 inch (5 mm.) falls is entered for each day on which so much rain occurs. Similarly with falls of ·4 in. and 1 inch. Cases in which a fall of the given amount occupied parts of two days are included, but each fall counted is of less than 24 hours' duration and only one fall of the given amount is credited to each calendar day. In the classification adopted in Table XVII, the first time limit for each of the stated amounts is nearly in accordance with the specification of a noteworthy fall (*see* diagram) and corresponding entries will be found in Table XVI.

In discussing the results it must be borne in mind that the time scales of the autographic records are so small that the discrimination between falls of ·2 inch which last more or less than 6 minutes is difficult. The other limiting rates are comparatively easy to judge.

In *British Rainfall,* 1925, pp. 52 and 53, the following details are given of the intense falls recorded at Camden Square (London) :—

(*a*) Table XVII.—Heavy falls in short periods of one hour or less at Camden Square, 1894–1925.

(*b*) Table XVIII.—Rainfall recorded at Camden Square, June 23rd, 1878. This was one of the most striking storms ever recorded in London.

In the preparation of the additional statistics for Camden Square set out in Table XVIII, the following procedure was adopted. The daily autographic records of rainfall, for the nine years 1921 to 1929, were examined, and each fall of 4 mm. or more in 10 minutes, of 5 mm. or more in 15 minutes, of 6 mm. or more in 30 minutes, and of 7 mm. or more in 60 minutes, was noted. Any intense shower may, of course, give an entry in more than one of the four columns. The records failed occasionally, but as they were usually adjusted as far as possible at the time, it is unlikely that any omissions of intense falls occurred. From this table it is possible to arrive at the frequencies of occurrence of falls of specified amounts in certain times during the nine years under discussion. Thus, falls of 4 mm. or more in 10 minutes, 5 mm. or more in 15 minutes, 6 mm. or more in 30 minutes, and 7 mm. or more in 60 minutes occurred on the average about three times a year.

Table XVIII.—*Falls of Rain exceeding certain specified Amounts in* 10, 15, 30 *and* 60 *minutes at Camden Square (London) during the nine years* 1921 *to* 1929.

Date.	In 10 min. 4 mm. or more (·157 ins. or more).		In 15 min. 5 mm. or more (·197 ins. or more).		In 30 min. 6 mm. or more (·236 ins. or more).		In 60 min. 7 mm. or more (·276 ins. or more).	
	ins.	mm.	ins.	mm.	ins.	mm.	ins.	mm.
2 Jan. '21 ..	·16	4·1	..	..	·29	7·4	·33	8·4
23 Aug. '21 ..	·37	9·4	·38	9·7	·68	17·3	·68	17·3
11 Sept. '21 ..	..	..	·45	11·4	·59	15·2	·85	21·6
26 May '22 ..	·16	4·1	..	..	..	..	..	..
6 July '22 ..	·22	5·6	·26	6·6	·33	8·5	·45	11·2
8 July '23 ..	·40	10·2	·45	11·4	·57	14·5	·79	20·1
18 Aug. '23 ..	·23	5·8	·28	7·1	·40	10·3	·46	11·9
9 Oct. '23 ..	..	..	..	..	..	..	·30	7·7
26 Oct. '23 ..	·25	6·3	·25	6·3	·30	7·5	·35	9·0
3 May '24 ..	·17	4·3	..	..	..	..	..	..
31 May '24 ..	..	..	..	..	..	..	·32	8·2
2 June '24 ..	·18	4·6	·20	5·1	·27	6·9	·30	7·6
17 July '24 ..	..	..	..	..	..	..	·31	7·9
22 July '24 ..	·27	6·9	·41	10·4	·56	14·2	·64	16·3
26 July '24 ..	·30	7·6	·32	8·1	·34	8·6	·38	9·6
29 July '24 ..	·35	8·9	·42	10·7	·50	12·7	·50	12·7
29 July '24 ..	·36	9·1	..	..	..	..	..	..
22 Aug. '24 ..	·18	4·6	·26	6·5	·41	10·5	·41	10·5
6 Oct. '24 ..	·18	4·6	·21	5·4	·24	6·1	·31	7·9
22 July '25 ..	·27	7·0	·28	7·0	·28	7·1	·29	7·4
22 July '25 ..	·50	12·7	·51	13·0	·53	13·6	·56	14·3
21 Aug. '25 ..	·19	4·8	·20	5·0	..	..	..	..
30 Dec. '25 ..	·16	4·1	·27	6·9	·39	9·9	·44	11·2
14 May '26 ..	·16	4·1	·23	5·8	·35	8·9	·52	13·3
1 Sept. '26 ..	..	..	..	..	·24	6·0	·32	8·1
2 Sept. '26 ..	..	..	..	..	·26	6·7	·42	10·7
11 July '27 ..	·26	6·6	·46	11·7	·63	16·0	·83	21·1
12 Aug. '27 ..	·16	4·1	·24	6·1	·29	7·4	·30	7·6
13 June '28 ..	..	..	..	..	·26	6·5	·40	10·1
19 Sept. '28 ..	..	..	..	..	..	..	·31	8·0
22 Oct. '28 ..	..	..	..	..	..	..	·39	9·1
4 June '29 ..	·21	5·1	·23	5·7	·28	7·1	·31	7·8
4 July '29 ..	·16	4·1	·20	5·1	·27	6·7	..	..
20 July '29 ..	·18	4·6	..	..	..	..	..	..
1 Aug. '29 ..	·17	4·4	..	.	..	..	..	..
16 Aug. '29 ..	..	..	..	..	..	..	·28	7·0
Total Number ..	26		21		24		29	

7.—HEAVY FALLS ON RAINFALL DAYS IN 1929.

The daily measurements of rain which are set out in this Section are (*a*) those of falls of 2·5 inches or more in the rainfall day, and (*b*) those of falls which amount to at least 7·5 per cent. of the total recorded for the year 1929. A fall of 2½ inches in a day at any station is sufficiently remarkable to be noticed, but as such heavy falls are more frequent in the normally wet areas of mountain districts than elsewhere, the criterion of 7½ per cent. was introduced to admit certain falls of less than 2½ inches in areas where the total rainfall for the year is less than 33·3 inches. In this way daily falls which are heavy in relation to the local standard are not neglected. It will be seen that by far the majority of the falls noticed satisfy criterion (*a*), but do not satisfy criterion (*b*), and that on June 3rd and October 5th, both criteria were simultaneously satisfied at a number of stations. Thus, the greatest amount measured in a day in 1929 was 8·31 inches on November 11th in the Rhondda Valley in South Wales: this amount formed only 7·2 per cent. of the total for the year at that station, viz., 115·98 inches. The "highest percentage" amount was 19·1 per cent. at Rumburgh Vicarage in Suffolk on July 3rd, but the actual amount of the fall was 4·01 inches, a much smaller amount.

A table showing the absolute maximum daily rainfall and the absolute maximum daily percentage reported for each year from 1865

TABLE XIX.—*Maximum Daily Fall and Maximum Percentage, 1913 to 1929.*

Year.	ABSOLUTE HIGHEST RAINFALL.				ABSOLUTE HIGHEST PERCENTAGE.				Year.
	Depth.	Per cent.	Station.	Div.	Per cent.	Depth.	Station.	Div.	
	in.					in.			
1913..	6·06?	**26·0?**	Doncaster Pumping Station.	9	**26·0?**	6·06?	Doncaster Pumping Station.	9	1913
1914..	6·35	4·1	Pen-y-Gwryd	11	14·8	3·35	Upminster	4	1914
1915..	7·06	19·7	Dalcross	18	19·7	7·06	Dalcross	18	1915
1916..	8·20	5·7	Kinlochquoich	18	13·1	3·91	Portland Bill	5	1916
1917..	**9·56**	..	Bruton	5	21·8	8·39	Aisholt	5	1917
1918..	4·95	9·2	Douglas.....	11	12·3	3·36	Woodsetts Grange ..	9	1918
1919..	4·50	5·9	Corran	15	11·1	3·57	Ayr Cemetery	15	1919
1920..	6·81	5·4	Dungeon Ghyll	10	15·6	4·69	Elkington Hall	7	1920
1921..	6·10	5·2	„ „	10	21·3	3·15	Pulham	4	1921
1922..	5·14	5·6	Ardgour House	15	16·5	4·70	Doncaster, Carr Ho. Hospital.	9	1922
1923..	5·57	3·9	Llechwedd Quarry ..	11	11·6	4·16	Rugeley, Brindley Bk	6	1923
1924..	9·40	19·5	Cannington, Brymore	5	19·5	**9·40**	Cannington, Brymore	5	1924
1925..	*4·13*	*2·8*	Snowdon (L. Llydaw Copper M).	9	11·4	*2·35*	Boston (Fishtoft S) .	7	1925
1926..	6·05	9·4	Abergwesyn (Nantneuadd)	11	10·9	4·57	Pembroke Dock	11	1926
1927..	6·00	4·6	Blaenau Festiniog (Llechwedd Q.)	11	*10·7*	4·00	Wolverhampton Town Hall	6	1927
1928..	7·77	**5·3**	Blaenau Festiniog (Oakeley Q.)	11	12·9	3·26	Marton-in-Cleveland (Southcroft).	9	1928
1929..	8·31	7·2	Rhondda (Fluest Wen Res.)	11	19·1	4·01	Rumburgh Vicarage	4	1929

The largest entry in each column is shown in heavy type and the smallest in italic type.

to 1921 was published in *British Rainfall*, 1921, p. 86. The portion of that table from 1913, completed by the addition of particulars for the years 1922 to 1929, is printed here. This portion contains the highest values shown in the complete table from 1865 to 1929, both as to amount and percentage ; these figures are printed in heavy type.

Particulars of the 12 largest falls of the year 1929 are given in Table XX. The table shows also the year's total at each of the stations and the percentage of that total which is accounted for by the highest daily fall. Only one entry is given for each of the stations included in the table.

TABLE XX.—*The largest Daily Rainfalls in* 1929.

Date.	Div.	Station.	Depth.	Per cent. of Year.	Total for Year.
			in.	%	in.
Nov. 11	XI	Rhondda (Lluest Wen Reservoir) ..	8·31	7·2	115·98
Nov. 11	XI	Rhondda (Lluest Wen Filter) ..	6·20	6·0	102·54
Nov. 11	XI	Treherbert (Tynywaun)	5·25	5·0	104·52
Nov. 11	XI	Rhondda W.W. (Llynfawr Reservoir)	4·98	5·3	94·56
Nov. 11	XI	Glyncorrwg Colliery	4·93	5·8	85·39
Nov. 11	X	Rosthwaite (The Moraine)	4·89	4·6	105·45
Nov. 11	XI	Rhondda (Castell Nos. Reservoir) ..	4·72	5·1	93·03
Oct. 5	V	Liskeard (Penmilder)	4·53	8·0	56·81
Nov. 11	XI	Cardiff W.W. (Beacons Reservoir)..	4·45	5·2	86·48
Nov. 11	XI	Ystradfellte Reservoir	4·41	4·8	92·69
Oct. 5	V	Princetown (H.M. Prison)	4·40	4·4	100·22
Nov. 11	XI	Taf Fechan (Neuadd Reservoir No. 1A.).	4·40	4·5	96·81

Only the first entry of this table qualifies for admission to the list of heavy falls of 6·5 inches or more which was printed in *British Rainfall*, 1926, p. 73. The complete list to date is reproduced as Table XX. There are 33 entries. The fall of 8·31 inches on November 11th, 1929, has been exceeded on only two previous rain-days viz., June 28th, 1917 and August 18th, 1924. Both these occasions were " summer " rains, and the amounts shown in the table were measured at stations whose average annual fall varies from 30 to 35 inches. The average annual fall at Lluest Wen Reservoir is about 88 inches. The fall of 8·31 inches on November 11th, 1929, may be regarded therefore as a record " winter " rain and also as a record for the " wet " stations.

In view of the abnormality of the rainfall of this day the station was inspected shortly after by Dr. Glasspoole and it is satisfactory

to know that no reason to doubt the authenticity of the reading could be discovered.

TABLE XXI.—*List of Heavy Falls on Rain-days* (6·5 *inches or more*).

County.	Station.	Fall. in.	Date.
Somerset ..	Bruton (Sexey's School)	9·56	June 28th, 1917.
Somerset ..	Cannington (Brymore House) ..	9·40	Aug. 18th, 1924.
Somerset ..	Bruton (King's School)	8·48	June 28th, 1917.
Somerset ..	Aisholt (Timbercombe)	8·39	June 28th, 1917.
Glamorgan ..	Rhondda (Lluest Wen Reservoir)	8·31	Nov. 11th, 1929.
Inverness ..	Loch Quoich (Kinlochquoich) ..	8·20	Oct. 11th, 1916.
Cumberland ..	Borrowdale (Seathwaite)	8·03	Nov. 12th, 1897.
Somerset ..	Bruton (Pitcombe Vicarage) ..	7·90	June 28th, 1917.
Merioneth ..	Blaenau Festiniog (Oakley Q) ..	7·77	June 28th, 1928.
Merioneth ..	Blaenau Festiniog (Llechwedd Q)	7·75	June 28th, 1928.
Inverness ..	Ben Nevis Observatory	7·74	Feb. 6th, 1894.
Norfolk ..	Brundall (Blofeld Road)	7·31	Aug. 26th, 1912.
Inverness ..	Ben Nevis Observatory	7·29	Oct. 2nd, 1890.
Carnarvon ..	Snowden (L. Llydaw Copper M.) 9	7·25	June 28th, 1928.
Norfolk ..	Sprowston Council School ..	7·20	Aug. 26th, 1912.
Inverness ..	Dalcross	7·06	Sept. 25th, 1915.
Somerset ..	Cothelstone House	7·05	June 28th, 1917.
Cumberland ..	Borrowdale (Seathwaite)	7·00	Oct. 29th, 1911.
Somerset ..	Castle Cary (Alford House) ..	6·95	June 28th, 1917.
Cumberland ..	Rosthwaite	6·94	Nov. 12th, 1897.
Norfolk ..	Old Catton	6·90	Aug. 26th, 1912.
Norfolk ..	Sprowston (Oak Lodge)	6·90	Aug. 26th, 1912.
Carnarvon ..	Snowdon (Llydaw Intake) 10 ..	6·85	June 28th, 1928.
Westmorland ..	Dungeon Ghyll	6·81	Feb. 9th, 1920.
Cumberland ..	Borrowdale (Seathwaite)	6·79	Sept. 30th, 1890.
Cumberland ..	Borrowdale (Seathwaite)	6·78	May 8th, 1884.
Somerset ..	Butleigh Gardens	6·75	June 28th, 1917.
Northumberland	Morpeth (Angerton Hall) ..	6·70	Sept. 7th, 1898.
Cumberland ..	Borrowdale (Seathwaite)	6·70	Nov. 13th, 1869.
Norfolk ..	Norwich (Carrow House) ..	6·67	Aug. 26th, 1912.
Norfolk ..	Norwich (Heigham Cemetery) ..	6·59	Aug. 26th, 1912.
Wiltshire ..	Stourhead Gardens	6·50	June 28th, 1917.
Wiltshire ..	Stourhead School	6·50	June 28th, 1917.

The total number of heavy falls recorded during 1929 is unusually large, and is all the more striking as they occur mainly in the last three months of the year. The heavy falls are particularly numerous for October 5th and November 11th. In this Section there are as many as 260 entries of three inches or more and 40 falls of 4 inches or more. The former number exceeds that of any year since before 1915, the previous largest number, 195, occurring in 1917, while the latter number was exceeded only in 1917, when 68 falls of 4 inches or more were recorded during the year. The numbers of entries for Scotland and Ireland were not remarkable, those for England and Wales were 244 and 38 respectively compared with 155 and 59 in 1917.

Chronicle.

In the tables included in the following account of the heavy falls of the year, a daily fall which is the maximum fall for the year at the station is indicated by ordinary Roman type ; other falls are in *italics*.

A striking feature of the tables of heavy falls on rainfall days in 1929 is the absence of falls due to thunderstorms. As a rule, one or more days of each year provide good examples of deluges which are the direct result of the unstable state of the atmosphere in thundery weather—this year, as in 1928, there is no pronounced example. By far the majority of heavy falls listed in the following chronicle are associated with Atlantic depressions of which the centres pass eastwards to the north of Scotland. This includes those for August 23rd, October 23rd, November 11th, 18th, 19th and 24th. On these occasions the British Isles are in the S.E. quadrant of the depressions, the winds are S.W. in direction and usually strong. The rain is of the " warm front " type and locally in mountainous regions the falls are very considerable, being augmented by orographic effects, by which the relatively warm, moist current is lifted to such an extent as to provoke copious condensation which may last without intermission for many hours.

Most of the heavy falls of rain on these days are found in the mountainous districts of the west of England and of Wales and occasionally in the west of Scotland. The large number of days in November with heavy falls in the western half of England and Wales, especially in South Wales and the Devon-Cornwall peninsula, is one of the most remarkable features of the rainfall of 1929. This was due to the passage of depressions to the north of these islands at much lower latitudes than usual, accompanied by an unusual series of vigorous secondary depressions which crossed the south of England and Wales.

The number of heavy falls on record for the first six months of the year is unusually small, being only 15. Apart from the fall on May 24th they were all isolated heavy falls at wet stations.

February 16th.

Devon.—Dean Prior Vicarage ..... *2·55 in.* or *3·0* per cent.

The observer reports this fall as due to the heaviest snowstorm within living memory and probably since 1814.

February 19th.

Kerry.—Kilgarvan (Inchimore) ..... *3·80 in.* or *3·3* per cent.

February 20th.

Kerry.	*in.*	or %
Kilgarvan (Inchimore) ..	*2·70*	*2·4*
Waterford.		
Knockaderry Reservoir ..	3·21	5·5
Kilmacthomas (Comragh Ho.)	4·26	6·6

Waterford.—cont.	*in.*	or %
Portlaw (Mayfield) ..	3·74	6·7
Wexford.		
Foulkesmill (Longraigue)	2·64	5·2

May 4th.

Glamorgan.	*in.*	or %
Rhondda (Castell Nos Reservoir)	*2·56*	*2·8*
Rhondda (Lluest Wen Filter)	*2·93*	*2·9*
Rhondda (Lluest Wen R.)	*3·05*	*2·6*

Merioneth.	*in.*	or %
Blaenau Festiniog (Llechwedd Q.)	*3·00*	*2·6*

May 22nd.

Argyll.	*in.*	or %
Morvern (Kingairloch) ..	2·57	2·5

Argyll.	*in.*	or %
Lochgoilhead (Nuthill) ..	2·58	3·2

May 22nd.

Down.—Mourne Mountains (Fofanny Res.) ..... 3·52 *in.* or 4·6 per cent.

Rain was fairly widespread in Ireland on this day. Minor flooding occurred in Cork in the late afternoon, becoming more extensive at night as the result of steady rain which persisted during the greater part of the day.

May 24th.

Cambridge.—Cambridge (Botanic Garden) ..... 1·74 *in.* or 8·9 per cent.

Torrential rain fell at Cambridge on the 24th and the drains were unable to carry away the surface water. Near Queen's College the basements of a number of University lodging houses in Silver Street were inundated and many of the undergraduate lodgers left their studies to cope with the flood. Streets at High Wycombe were flooded to a depth of 18 inches.

This rainfall was associated with a thunderstorm.

JULY.—The heavy falls of this month occurred on nine days, but only those of July 3rd and 4th were widespread.

July 3rd.

Kent.	*in.*	or %
Dartford (West Hill) ..	1·65	7·5
Sussex.		
Balcombe (Highley Manor)	3·04	8·6
Worth (Worth Lodge) ..	3·56	9·6
Hants.		
Portsmouth (Eastney) ..	1·78	8·2
Essex.		
Great Clacton (Clay Hall)..	1·80	9·1
Halstead (Attwoods) ..	2·04	8·2
Halstead (The Brewery) ..	2·04	8·4
Walton-on-the-Naze ..	3·43	15·5
Dovercourt	2·99	13·5
Suffolk.		
Ipswich (Roundwood) ..	1·72	7·8
Ipswich (All Saints Vic.) ..	1·53	7·5
Ipswich (Rookwood, Copdock)	1·73	7·5
Felixstowe Aerodrome ..	3·00	14·6
Gosbeck (Hall Farm) ..	1·80	9·7
Woodbridge Abbey ..	2·04	8·7

Suffolk—cont.	*in.*	or %
Henley Hall	1·77	7·5
Melton (St. Audrey's Hosp.)	1·65	7·6
Rendlesham Hall	2·84	12·8
Pettaugh	2·22	10·1
Snape (Wadd House) ..	2·53	11·8
Snape (Green Heys) ..	2·00	9·2
Halesworth Rectory ..	2·80	12·2
Halesworth (Estate Office)	1·96	8·5
Waldringfield	3·47	15·7
Wangford (Ford House) ..	1·80	9·0
Horham Rectory	2·82	11·6
Oakley	2·38	10·0
Eye (Brome)	1·75	8·8
Rumburgh Vicarage ..	4·01	19·1
Bungay (Flixton Hall) ..	3·21	15·0
Norfolk.		
Pulham St. Mary (Brook House)	1·60	7·6
Pulham St. Mary (Hill Ho.)	1·98	8·0
Ditchingham	3·60	17·7

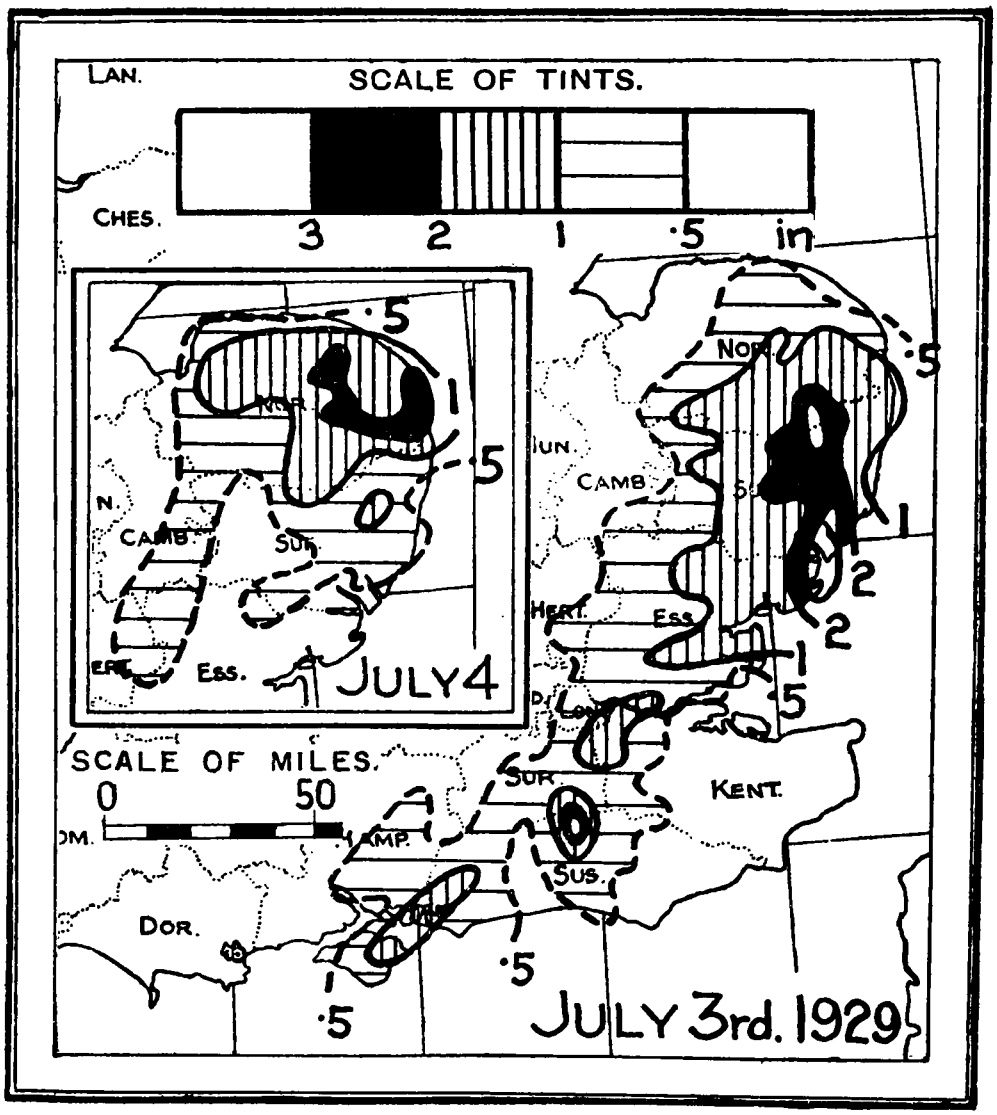
A large area in south-east England received considerable amounts of rain on July 3rd, the distribution being shown on the map on p. 60. There was more than half-an-inch over a broad belt stretching from the Isle of Wight to the east coast of Norfolk with more than 3 inches to the south of Three Bridges, from Walton-on-the-Naze to Woodbridge and to the east of Beccles.

July 4th.

Suffolk.	*in.*	or %
Lound Pumping St. ..	2·50	12·8
Fritton Hall	2·25	11·2
Yarmouth (Burgh Hall) ..	1·81	9·1
Norfolk.		
Denton Rectory	2·00	8·3
Beccles (Raveningham H.)	2·07	8·8
Lodden (Chedgrave Manor)	2·00	9·9
Norwich (Carrow Abbey)	2·19	9·6
Norwich (Heigham Cem.)	1·77	7·5
Thorpe St. Andrew (Pine B.)	2·57	11·6
Drayton Hall	1·94	8·0
Yarmouth (Ormesby St. M.)	2·24	10·5
Coltishall (Manor House)..	2·27	10·2
Barton Turf Hall	1·72	8·5
Worstead (Lyngate Cottage)	2·24	10·7
Walcott-on-Sea	1·84	8·9
Attleborough (Quidenham H.)	1·71	7·6

Norfolk—cont.	*in.*	or %
Diss (The Cedars)	1·39	7·6
Sprowston (Oak Lodge) ..	1·91	8·5
Acle	1·75	8·1
Durham.		
Consett (Crook Hall) ..	1·85	7·9
Ayr.		
Glengarnock (Chemical W.)	2·87	4·7
Dumbarton.		
Roseneath Castle Gardens	2·80	4·5
Renfrew.		
Kilmacolm W.W.	3·44	4·6
Shaws W.W. (Gryfe R.)	3·12	4·6
Shaws W.W. (Mansfield) ..	3·41	5·2
Shaws W.W. (Loch Thom)	2·72	3·7
Shaws W.W. (New Yetts Dam)	2·86	4·1
Shaws W.W. (Hole Glen)..	2·80	3·5
Greenock (Prospect Hill) ..	3·03	4·5
Gourock (Coves Reservoir)	3·35	5·2

The distribution of the heavy rain of July 4th in East Anglia is shown alongside the map for July 3rd. There was more than 2 inches over a large area between Norwich and Yarmouth. A small area to the east of Beccles received more than 4 inches during the two days July 3rd to 4th. During these two days there was a complex system of low pressure over the British Isles which gradually developed into a simple circular depression, centred over Ireland, by the morning of the 5th. The heavy rain in East Anglia was associated with two



Rainfall, 3rd—4th July, 1929.

subsidiary depressions in the main belt of low pressure which moved in succession from the Bay of Biscay past the Straits of Dover. They were centred off East Anglia at about 7h. on the 3rd and 4th respectively. The rain was accompanied by thunder and lightning in the early morning and in the afternoon of the 4th, and was of sufficient

intensity at Felixstowe and Manston Aerodrome, near Ramsgate, to warrant special mention in Section 6. At Felixstowe 3·00 inches were measured between 3h. 45m. and 7h. on the morning of the 4th. The fall continued less intensely until 9h. 40m. when a further ·56 inch was recorded, giving a total continuous fall of 3·56 inches. This amount is 16·7 per cent. of the average annual rainfall and it is interesting to note that in these few hours as much rain fell there as during the five months February to June, 1929.

There was additional heavy rain on the 4th to the north-west of Glasgow, more than 3 inches being recorded on the mountains to the south of Greenock. This was due to another subsidiary depression in the main low pressure belt and the rain was mainly of the thunderstorm type.

July 5th.

Berwick —Earlston (Cowdenknowes) ..... 2·20 *in.* or 7·8 per cent.

July 9th.

Mayo.—Delphi Lodge..... 2·50 *in.* or 2·4 per cent.

July 20th.

London.	*in.*	or %	*Middlesex.*	*in.*	or %
Hampstead (North Square)	2·07	9·0	Perivale (Northern Sewage Farm)	1·95	8·3
			Hendon (Central School) ..	2·53	9·7

A line squall on July 20th brought thunderstorms with exceptionally heavy rain to many places in the south of England. On the 20th a greater number of intense falls qualified for mention in Section 6 than for any other day in the year. A general discussion of the storm is given in *Meteorological Magazine,* 1929, pp. 156–158.

July 21st.

Cambridge.	*in.*	or %	*Cambridge.*	*in.*	or %
Wisbech (Horticultural St.)	1·88	9·5	Wisbech (Queen's Road) ..	2·01	10·6

July 28th.

Glamorgan.—Pontycymmer (Police Station).... *2·55 in.* or *2·8* per cent.

During the course of the 28th and the early hours of the 29th a depression passed eastwards directly across England and rain occurred nearly everywhere. In many places, especially in the south-west, the 28th was the wettest day of the month. Details of the duration of rainfall for this day are given in Table XII.

July 30th.

Westmorland.—Kentmere Head Reservoir .... 3·62 *in.* or 3·4 per cent.

July 31st.

	in.	or %
Cumberland.		
Rosthwaite (The Moraine)	*2·50*	*2·4*
Westmorland.		
Bowness (Dawstone)	2·50	3·4
Merioneth.		
Blaenau Festiniog (Oakeley Q.)	*2·70*	*2·3*
Carnarvon.		
Snowdon (Cwm Dyli)	*2·69*	*2·0*
Snowdon (Llydaw Intake)	*2·63*	*1·8*
Lanark.		
Glasgow (Tollcross Park)	2·61	6·1
Aberdeen.		
Aberdeen (Mannofield Res.)	2·58	7·4

AUGUST.—Heavy falls are credited to the 3rd, 16th, 23rd and 30th, but at only one station in the case of the 16th and 30th.

August 3rd.

	in.	or %
Devon.		
Bickley (Roborough Res.)	3·09	5·3
Lee Moor Clay Works	3·45	4·1
Yelverton (Oakfield)	3·05	4·5
Sheepstor (Redstone)	3·95	5·4
Sheepstor (Burrator)	*3·20*	*4·6*
Sheepstor (Head Weir)	*3·25*	*4·5*
Dousland Reservoir	3·25	4·7
Dartmoor (Lowery)	3·42	4·8
Whitchurch (Glenofen)	*2·54*	*4·2*
Whitchurch (Langstone)	*2·99*	*4·4*
Mary-Tavy (Blackdown)	*2·90*	*4·1*
South Brent (Badworthy)	*3·28*	*3·7*
Cornwood (Yealm Head S.)	3·21	4·2
Princetown (H.M. Prison)	*4·22*	*4·2*
Postbridge (Archerton)	*2·65*	*3·0*
Molland (Green Cot)	*2·62*	*4·7*
Horrabridge (Furzetor)	2·95	4·6
South Brent (Beechfield)	*2·50*	*3·4*
Challacombe	*2·88*	*4·2*
Cornwall.		
Bolverton Vicarage	2·93	3·7
Somerset.		
Cheddar Pumping Station	2·60	6·7
Shipham (Studleigh End)	3·15	7·7
Winscombe (The Down)	3·49	8·6
Weston-super-Mare (Clarence Pk.)	2·99	9·3
Somerset.		
Hawkridge (Liscombe)	*2·58*	*4·6*
Blagdon Pumping Station	*2·76*	*6·4*
Yatton (Chelvey)	2·56	6·6
Glamorgan.		
Rhondda W.W. (Llynfawr Res.)	*3·02*	*3·2*
Lower Penarth	2·62	7·1
Cardiff (Cogan P. Stn.)	2·55	6·0
Cardiff (Trade St. Depot)	2·51	5·6
Rhubina Reservoir	*2·54*	*4·9*
Ystradyfodwg (Tyntyla H.)	4·12	5·8
Rhondda (Castell Nos Res.)	*2·89*	*3·1*
Rhondda (Lluest Wen Filter)	*3·25*	*3·2*
Rhondda (Lluest Wen Res.)	*3·60*	*3·1*
Taf Fechan (Neuadd Res.) No. 1A	*2·55*	*2·6*
Treherbert (Tynywaun)	*3·36*	*3·2*
Pencoed (Glan Ffrwd)	2·82	5·5
Treorchy Pumping Station	*2·79*	*3·6*
Merioneth.		
Blaenau Festiniog (Llechwedd Q.)	3·25	2·8
Carnarvon.		
Snowdon (Cwm Dyli)	4·31	3·2

Heavy rain on August 3rd was confined to the south-west of England and to Wales. There was more than 1 inch over most of the Devon-Cornwall peninsula, Somerset, South Wales and North Wales, with more than 4 inches locally near Princetown, Ystradyfodwg in Glamorgan and on Snowdon. The rain was associated with unusually strong south-west winds in the southern half of England and Wales. At Winscombe, in Somerset, the observer recorded 3·49 inches, the heaviest fall in a day in the twenty-eight years' record at that station. The rain all came between 12h. on the 3rd and 5h. on the 4th, there was no thunder and the wind was between south and south-west. Details of the duration of rainfall are given in Table XII. It will be noted that while there was no rain at all in the south-east of England, the duration exceeded 10 hours in Devon, Cornwall and South Wales, while at Cray Reservoir in Brecon the rain lasted all day.

The pressure maps show that a warm front remained more or less stationary during the day over western England and Wales, the main depression continuing to move to the north of Scotland at about the usual rate, although its centre was further south than is frequently the case.

August 16th.

Essex.—Great Baddow ..... 1·85 *in.* or 7·8 per cent.

August 23rd.

Yorkshire.	*in.*	or %
Slaidburn (Hareden Valley)	2·52	3·4
Slaidburn (Whitendale) ..	2·58	3·6
Merioneth.		
Tan-y-bwlch (Dol-y-Moch)	3·61	5·0
Festiniog (Hafod Fawr) ..	3·12	3·7
Blaenau Festiniog (Oakeley Q.)	*3·35*	*2·8*

Merioneth.	*in.*	or %
Blaenau Festiniog (Llechwedd Q.)	3·25	2·8
Carnarvon.		
Beddgelert (Council School)	3·10	3·1
Snowdon (Cwm Dyli) ..	*2·95*	*2·2*
Snowdon (Llydaw Intake)	*3·03*	*2·1*

The rainfall of August 23rd was associated with fairly strong south-west winds. Some rain fell at most stations in Ireland, in the north-west of England and Wales and in Southern Scotland. The entries above are confined to stations in North Wales and near Slaidburn, to the east of Lancaster. Heavy rain of an inch or more also occurred in the neighbourhood of the Shannon Estuary. Falls of more than 3 inches were confined to Snowdonia and the mountains in the immediate vicinity.

August 30th.

Donegal.—Killybegs (Rockmount) ..... 2·53 *in.* or 4·4 per cent.

The weather map for 7h. on the 23rd shows a cold front across the British Isles from Limerick to Newcastle-on-Tyne. This remained fairly stationary during the day. On this occasion there was persistent rain to the south of the cold front, where the cold air from the west and north-west came into contact with the warm air from the south-west. This accounts for the belt of rain across the central district of the British Isles.

SEPTEMBER.—Anticyclonic conditions were general throughout the greater part of the month and only one entry qualifies for inclusion in this Section, viz., at Jersey on the 16th. This fall was associated with a series of thunderstorms due to a depression over France.

September 16th.

Jersey.—St. Helier's (St. Louis Observatory) .. 2·65 *in.* or 6·8 per cent.

OCTOBER.—Although the month was generally unsettled and windy with frequent rain, heavy falls on rainfall days were rare apart from the 5th. As many as 232 stations gave entries for the 5th. This is an unusually large number for one rainfall day, the previous largest number in recent years being 122 for May 31st, 1924. There were

nearly as many on September 11th, 1921, but in view of the small annual totals in that year falls of less than 1 inch qualified for inclusion on that occasion. We have therefore to go back to the Bruton storm of June 28th, 1917, to find as many falls sufficiently heavy to be included in this Section. On that occasion there were 220 entries but the actual rainfall amounts were much more striking than on October 5th, 1929.

October 5th.

Devon.	*in.*	or %
Bickley (Roborough Res.)	*2·78*	*4·7*
Lee Moor Clay Works ..	*2·64*	*3·2*
Yelverton (Oakfield) ..	*2·73*	*4·0*
Sheepstor (Red Stone) ..	*3·88*	*5·3*
Sheepstor (Burrator) ..	3·35	4·8
Sheepstor (Head Weir) ..	3·48	4·8
Dousland Reservoir ..	*2·88*	*4·2*
Dartmoor (Swincombe) ..	4·03	5·1
Dartmoor (Fox Tor) ..	3·69	4·9
Dartmoor (Lowery) ..	*3·30*	*4·7*
Dartmoor (Strane Valley)	3·03	4·5
Whitchurch (Glenofen) ..	3·00	5·0
Whitchurch (Langstone) ..	3·13	4·6
Whitchurch (Holwell) ..	3·40	5·5
Tavistock	3·54	5·7
Horrabridge (Furzetor) ..	*2·83*	*4·4*
Tavistock (The Library) ..	3·30	6·0
Mary-Tavy (Blackdown) ..	3·63	5·2
Lifton (Kelly House) ..	3·01	5·2
Coryton Manor	3·41	6·3
Lydford (Naseby)	3·70	5·5
Lew Down (Coombe Trenchard)	3·10	5·7
Launceston (Polapit Tamar)	2·60	5·3
Ashwater Rectory ..	2·53	5·0
Holsworthy (Bodmeyric) ..	2·63	5·4
Ermington (Strode) ..	2·72	5·2
Ivybridge (Filham House)	2·58	4·5
South Brent (Badworthy)	3·60	4·1
South Brent (Beechfield) ..	3·25	4·4
Totnes (Dundridge Gdns.)	2·58	4·2
Totnes (Staverton) ..	2·90	5·4
Dean Prior Vicarage ..	3·26	3·9
Holne (Church Park Cot.)	3·81	4·7
Ashburton (Hele House) ..	3·55	5·6
Princetown (Huccaby Ho.)	3·14	4·9
Princetown (Wydemeet) ..	3·86	5·1
Princetown (H.M. Prison)	4·40	4·4
Postbridge (Archerton) ..	3·69	4·2
Postbridge (Warren Ho.) ..	*3·54*	*4·6*
Teignmouth (Bonnicliff) ..	2·65	6·4
Teignmouth (Hazeldown Reservoir)	2·54	5·8
Teignmouth (Shaldon Res.)	2·75	6·0
Teignmouth (Landscore R.)	2·55	6·2
Ilsington	*3·29*	*5·6*
Dawlish (Luscombe Castle)	2·93	6·0

Devon.	*in.*	or %
Bovey Tracey (Hedgebarton)	*3·20*	*4·5*
Chudleigh (Rock House) ..	2·68	6·4
Hennock (Hazlewood) ..	2·90	6·0
Moretonhampstead (Bullaton)	*2·94*	*5·4*
Moretonhampstead (Mardon)	3·00	6·7
North Bovey (Manor Hotel)	3·48	5·9
Christow (Kennick) No. 1	3·51	6·6
Christow (Kennick) No. 2	3·28	6·2
Chagford (Fernworthy) ..	4·39	5·3
Chagford (Metherall) ..	4·36	5·5
Christow (Smithacott) ..	2·65	5·9
Moretonhampstead (Stinhall)	3·22	4·9
Chagford (Thornworthy) ..	4·36	5·6
Chagford (Dartmoor San.)	3·54	5·9
Chagford (Huish)	3·25	5·6
Starcross	2·81	7·3
Exeter (Hatfield, (Longdown)	3·14	7·5
Rockbeare Manor	3·15	9·4
Brampford Speke	2·77	8·8
Kentisbeare	2·82	7·6
Exminster (Trood House)	2·77	6·8
Tiverton (St. Aubyn's Park)	2·58	5·9
Tiverton (Hartnolls) ..	2·64	6·1
Tiverton (Alstree, Halberton)	3·09	7·0
Tiverton (Lythecourt) ..	2·63	6·0
Tiverton (Blundell's Sch.)	2·77	6·4
Hemyock (Windlehurst) ..	2·93	7·1
Bampton (Stuckeridge) ..	3·00	6·4
Bampton (Castle Grove) ..	2·76	5·8
Stockland (Reading Room)	2·58	6·0
East Anstey (Rhyll Manor)	2·64	5·9
East Anstey Rectory ..	2·82	5·9
Molland (Green Cot) ..	3·30	5·9
Okehampton Grammar Sch.	3·60	7·0
Okehampton (Uplands) ..	3·50	5·8
Parkham (Melbury Moor)	3·21	5·9
High Bray Rectory ..	2·54	4·2
Parkham (Melbury Res.)	3·64	5·7
Bideford (Gammaton Res.)	2·70	6·3
Challacombe	2·93	4·3

October 5th—*continued.*

Cornwall.	*in.*	or %
Redruth (Trewirgie)	2·71	4·7
Bodwin (Polgwin)	2·86	5·0
Bodmin (Castle Hill House)	2·86	5·4
St. Keverne (Lanarth)	2·54	5·2
Camelford (Stannon Clay Works)	2·52	3·8
Falmouth Observatory	2·56	5·1
Penryn (Ashfield)	2·59	5·0
Gwennap (Trevince)	2·78	5·0
St. Day Council School	2·99	5·2
Truro (Tregolls)	2·70	5·2
Mevagissey	3·05	5·9
Polperro	3·30	7·1
Fowey	2·95	7·1
St. Austell (Charlestown Old Vic)	2·69	5·2
St. Austell (Trevarna)	2·90	5·3
Menheniot (Coldrenick)	3·16	5·4
Liskeard (Penmilder)	4·53	8·0
Liskeard (St. Pinnock Rec.)	3·52	5·2
Bolventor Vicarage	*2·92*	*3·7*
Devonport (Empacombe)	2·51	5·0
Torpoint (Trethill House)	2·52	5·9
Saltash (Pentillie Castle)	3·41	5·7
Launceston (Hexworthy)	3·33	6·3
Launceston (Pendruccombe)	3·31	6·5
Albaston (Nanaimo House)	2·76	5·5
Sithney Council School	2·87	5·9
East Looe	3·33	—
Helston (Tenderah)	2·87	5·6
Somerset.		
Barrow Gurney Res.	2·80	6·8
Walton (Canok Lodge)	2·66	7·3
Portishead (Bristol Road)	2·50	7·1
Portishead (St. Mary's Rd.)	2·56	7·3
Burnham (Chalbury)	2·51	7·7
Burnham	2·35	7·6
Burnham (Berrow Road)	2·49	7·5
Backwell Hill	2·66	7·0
Clevedon (Gas Works)	2·56	7·7
Clevedon (Bowling Green)	2·65	7·1
Winsford	3·20	—
Chaffcombe House	2·83	7·0
Pitminster (Blagdon Hill)	2·96	6·3
Ashbrittle (Kyrle)	2·98	6·5
Taunton (The Park)	2·75	8·2
Taunton (Holy Trinity Sch.)	2·75	8·2
Milverton (Spring Grove)	3·05	7·2
Wiveliscombe (Culverhead)	3·25	7·2
Angersleigh (Leigh Court)	2·94	7·3
Bishop's Lydeard (Watts House)	2·93	8·4
North Newton	2·35	7·6
Aisholt (Timbercombe)	2·50	6·5
Bagborough Rectory	2·50	6·5
Spaxton (Furzydown)	2·80	7·8

Somerset.	*in.*	or %
Over Stowey (Quantock San.)	2·72	7·3
Cannington (Ashford)	2·38	7·5
Washford (Croydon Hall)	3·13	6·9
Bicknoller (Ford)	2·92	7·7
Bicknoller (Willett)	3·33	8·0
Williton (The White Ho.)	3·31	9·3
Stogursey	2·82	8·8
Stogursey (Fairfield Ho.)	2·75	8·3
Minehead (Blenheim Gdns.)	2·96	7·9
Porlock (Bush Steep)	2·93	7·6
West Porlock (Underway)	3·64	6·8
Exbridge	3·09	6·4
Brushford Rectory	3·15	6·2
Brushford Nurseries	3·15	6·6
Dulverton C.E. School	2·52	4·9
Hawkridge (Liscombe)	3·23	5·7
Withypool (Comer's Cross)	3·05	5·9
Cutcombe (Wheddon Cross)	3·56	6·3
Exford (Foxcombe)	3·47	6·0
Blagdon Pumping Stn.	2·94	6·8
Yatton (Chelvey)	*2·50*	*6·5*
Gloucestershire.		
St. Briavels	2·63	5·3
Coleford (Cannop Colliery)	2·68	6·8
Tewkesbury (Upper Lode)	2·05	7·5
Frocester Manor	2·42	8·1
Stonehouse (Wycliffe Coll.)	2·45	7·6
Westbury-on-Severn (Elton)	2·58	7·4
Haresfield Court	2·57	7·2
Tewkesbury Pumping Stn.	1·87	8·1
Gloucester (Maisemore Lk.)	2·01	7·7
Herefordshire.		
Goodrich Court Gdns.	2·62	8·2
Ross (County Observatory)	2·47	7·9
Ross (Birchlea)	2·44	8·1
Bridstow (Ashe Leigh)	2·75	8·7
Kentchurch Rectory	2·59	6·4
Perrystone Court	2·24	8·2
Hereford (Belmont Abbey)	2·21	7·8
Hereford (Breinton Court)	2·25	7·8
Much Marcle (Hall Court)	2·19	7·6
Tarrington (Alders End)	2·58	8·6
Worcestershire.		
Kempsey (Napleton Ho.)	1·90	7·6
Bredon (The Croft)	1·96	7·5
Pershore (Southern Ho.)	1·93	8·1
Warwickshire.		
Bidford (Moor Hall)	1·65	7·6
Monmouth.		
Rumney (Witla Court)	2·83	6·5
St. Mellons (Druidstone)	2·68	6·2
Rogerstone (Rhiwderin)	2·62	5·9
Blackwood	3·25	5·8
Abertillery (The Park)	2·80	4·6
Ebbw Vale (Iron Works)	2·75	4·4

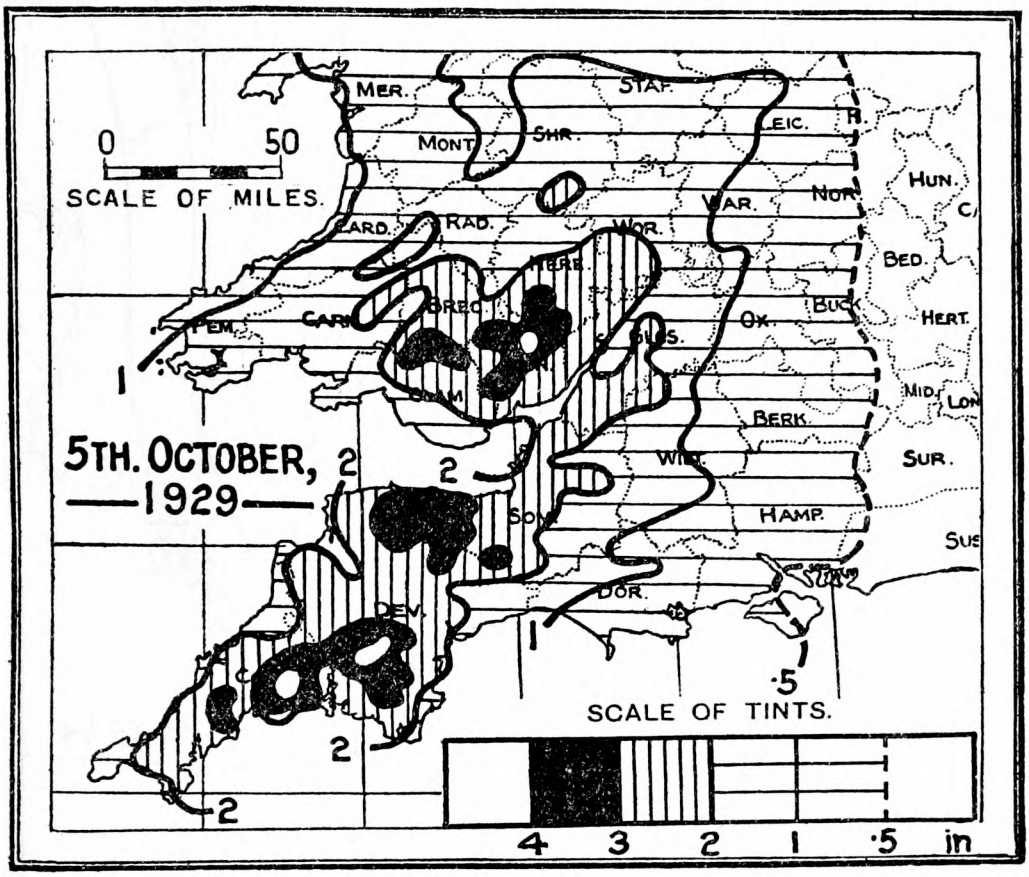
October 5th—*continued.*

Monmouth.	*in.*	or %
Newport W.W. (Ynis-y-fro-Res.)	2·60	5·5
Newport W.W. (Pant-y-reos Res.)	3·49	6·5
Newport W.W. (Newchurch)	2·64	5·3
Usk (Monmouth Agric. In.)	2·91	6·7
Abersychan (Glansychan)	3·83	6·1
Goytre (Goytre Hall)	4·00	7·2
Abergavenny (Plas Derwen)	4·29	—
Abergavenny (Ty Clyd)	3·30	6·1
Abergavenny (Larchfield)	3·37	7·3
Abergavenny (Richmond Road)	3·60	7·1
Abergavenny (The Chain)	3·30	6·6
Llanvihangel Crucorney Depot	3·05	6·2
Glamorgan.		
Rhondda W.W. (Llynfawr Res.)	3·35	3·5
Pontycymmer (Police Stn.)	*2·55*	*2·8*
Glyncorrwg Colliery	*3·28*	*3·8*
Rhubina Reservoir	2·59	5·0
Treharris Service Reservoir	*2·68*	*4·2*
Mountain Ash (Darranlas Res.)	*3·18*	*4·1*
Rhondda (Castell Nos Res.)	*3·18*	*3·4*
Rhondda (Lluest Wen F.)	*3·02*	*2·9*
Rhondda (Lluest Wen Res.)	*3·47*	*3·0*
Merthyr Tydfil (Penbryn F.)	2·57	3·9
Dowlais (Gwernllwyn)	2·87	4·5
Dowlais (Garth Filter Beds)	2·55	3·8

Glamorgan.	*in.*	or %
Rhymney Bridge Res.	2·91	4·0
Treherbert (Tynywaun)	*3·72*	*3·6*
Treorchy Pumping Station	*2·86*	*3·7*
Brecon.		
Aberdare (Nanthir Res.)	*2·68*	*3·7*
Ebbw Vale W.W. (Llangynidr)	3·24	4·3
Ebbw Vale W.W. (Llangynidr) W.	3·44	4·5
Ebbw Vale W.W. (Llangynidr) N.W.	3·52	4·6
Ebbw Vale W.W. (Carno) S.	3·22	4·3
Ebbw Vale W.W. (Carno) E.	3·20	4·4
Ebbw Vale W.W. (Carno) W.	3·25	4·2
Ebbw Vale W.W. (Carno) N.	3·23	4·5
Talybont (Pentir-rhiw)	*2·51*	*3·4*
Crickhowell Rectory	2·65	5·3
Crickhowell (Gwernvale)	2·51	5·0
Crickhowell (Glanusk Park)	2·50	4.2
Crickhowell (Dan-y-Parc)	2·84	—
Caithness.		
Altnabreac	2·90	7·7
Cavan.		
Belturbet (Cloverhill)	2·65	7·3
Tyrone.		
Donaghmore	2·75	5·9
Castle Caulfeild (Parkanour)	2·70	6·2
Londonderry.		
Limavady (Roevista Manse)	2·60	7·5

Heavy falls on October 5th occurred at many stations in the south-west of England and Wales and at isolated stations in Caithness and in Northern Ireland. Some rain occurred practically everywhere in Ireland and the amount exceeded 1 inch over most of the northern half, with more than 2.5 inches locally in Co. Cavan, Tyrone and Londonderry. The distribution of the rainfall was most striking in the south-west of England and Wales and this is shown in the map reproduced on p. 67. The areas over which the rainfall exceeded 2, 3 and 4 inches have been measured and the volume of precipitation and general rainfall over the strip thus defined have been calculated.

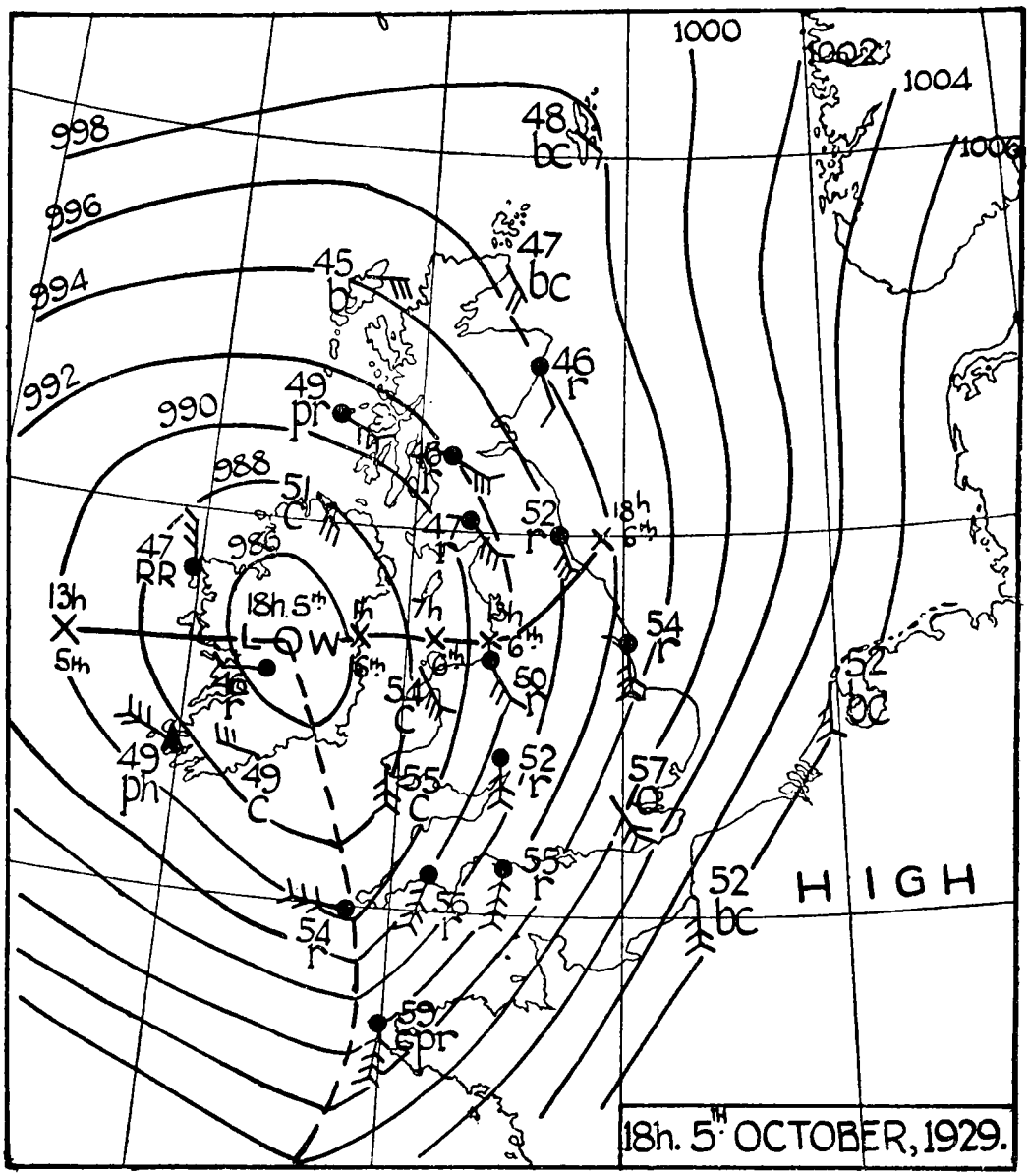
	Area. Sq. miles.	General Rainfall. Inches.	Volume of Rainfall. Sq. miles × inches.
More than 4 inches.	74	4·10	303
3–4 in.	1,570	3·37	5,290
2–3 in.	5,531	2·47	13,661
Total more than 2 in.	7,175		19,254



Rainfall, 5th October, 1929.

The general rainfall of the 7,175 sq. miles was 2·68 inches.

A weather map corresponding with observations made at 18h. on October 5th is reproduced. During the day the depression moved slowly across Ireland and continued to deepen. About midnight the general movement of the depression changed, becoming much more northerly, and during the day it passed along the west of Scotland. The heavy rain in the south-west of England occurred mainly during the night of the 5th to the 6th when a line squall travelled across the country. One noteworthy feature is that the rain continued with but little diminution for some hours after the line squall had passed. The duration of the rainfall of this day is given in Table XII.



Synoptic Chart, 5th October, 1929, 18h.

BAROMETER.—Isobars are drawn for intervals of 2 millibars, 1,000 millibars = 29·53 mercury-inches.
WIND.—Direction is showing by arrows flying with the wind. Force, on the scale 0 to 12, is indicated by the number of feathers. A circle indicates calm.
TEMPERATURE is given by figures in degrees Fahrenheit.
WEATHER is indicated by the following notation:—
b, blue sky; bc, sky partly clouded; c, generally cloudy; o, overcast sky; p, passing showers; r, rain; d, drizzle; h, hail. Capital letters indicate "intense"; suffix . indicates "slight"; repetition of letters indicates continuity. ● = rain. ▲ = hail.

The heavy rain in the north of Ireland was due to the slow passage of the depression across that area. That in the south-west of England and Wales was due mainly to the approach and passages of the " squall line," giving a sharp change in the direction of the surface wind from south to north-west with a sudden cessation of the gale. The cyclonic

rain was due to the undercutting of the southerly wind by the north-west wind, the intensity and persistence of the rain being accentuated by the distribution of the land masses.

October 6th.

Argyll.—Loch Shiel (Polloch House) ..... 2·79 *in.* or 3·0 per cent.

October 13th.

Argyll.	*in.*	or %
Ardgour House	*2·85*	*2·8*
Mull (Glencannel)	3·91	3·3

Inverness.	*in.*	or %
Loch Quoich (Glenquoich)	3·00	2·5

The rainfall of the 13th was associated with a deep depression well to the north of Scotland. The pressure gradient was steep over Scotland. The southern half of the British Isles was under the influence of an anticyclone centred over France and weather was rainless generally although cloudy.

October 23rd.

Lancashire.	*in.*	or %
Hampson-in-Ellel ..	2·78	6·2
Quernmore (Brow Top) ..	2·61	5·3
Fleetwood	2·57	7·0
Cumberland.		
Rosthwaite (The Moraine)	*2·70*	*2·6*
Buttermere (Hassness) ..	3·33	3·2
Westmorland.		
Patterdale (Greenside Mine)	2·75	2·9

Glamorgan.	*in.*	or %
Rhondda (Lluest Wen Res.)	*2·53*	*2·2*
Merioneth.		
Festiniog (Hafod Fawr) ..	*2·64*	*3·2*
Blaenau Festiniog (Llechwedd Q.)	*3·18*	*2·7*
Carnarvon.		
Snowdon (Cwm Dyli) No. 11	*3·65*	*2·8*
Snowdon (Llydaw Intake) No. 10	4·05	2·8

Rain was general on the 23rd over Scotland and Ireland and the north-western half of England and Wales, over most of Scotland and Ireland the rainfall was about an inch or half an inch. Over much of Wales and the extreme north-west of England the rainfall was heavier, as much as three inches being recorded locally in Snowdonia and the English Lake District.

The rainfall was associated with a rapidly moving and deepening secondary depression which developed to the west of Ireland and crossed the south-west of Ireland later during the day. The heavy rain in England and Wales was confined to the mountainous districts, there being practically no rain in the eastern half of the country.

NOVEMBER.—The weather was generally unsettled during the month with frequent strong winds and gales. Heavy falls occurred on as many as 12 rainfall days *viz.* the 4th, 5th, 7th, 9th, 11th, 15th, 18th, 19th, 21st, 24th and 27th. They were unusually widespread on the 11th, 18th, 19th and 24th. Details of the duration of rainfall on these days at representative stations are given in Table XII (Section 5). The most striking feature of the distribution of the heavy rains of November was their occurrence in the south-west of England and Wales, associated with the passage of depressions to the north of these islands at much lower latitudes than usual, accompanied by an unusual series of vigorous secondaries which crossed the south of England and Wales.

November 4th.

Devon.	*in.*	or %
Princetown (Huccaby Ho.)	*2·96*	*4·6*
Princetown (Wydemeet) ..	*3·52*	*4·7*
Carnarvon.		
Snowdon (Llydaw Intake)	*2·60*	*1·8*

Argyll.	*in.*	or %
Glencroe (Guithas Cottage)	3·06	2·9
Morvern (Kingairloch) ..	*2·54*	*2·5*
Ardgour House	3·26	3·2
Bridge of Orchy (Inveroran)	2·54	3·2
Glenleven (Blackwater Dam S.)	2·52	2·6
Kerry.		
Kilgarvan (Inchimore) ..	*2·85*	*2·5*

November 5th.

Lancashire.	*in.*	or %
Duddon Valley (Seathwaite School)	*2·64*	*2·8*
Cumberland.		
Rosthwaite (Moraine) ..	*2·62*	*2·5*
Buttermere (Hassness) ..	*2·95*	*2·8*

Glamorgan.	*in.*	or %
Rhondda (Lluest Wen Res.)	*2·72*	*2·3*
Carnarvon.		
Snowdon (Cwm Dyli) ..	*2·64*	*2·0*
Snowdon (Llydaw Intake)	*2·70*	*1·8*

The heavy rain of November 4th and 5th was associated with a deep depression which passed between Iceland and the north of Scotland and a secondary depression which crossed the south of England. Wind was south-westerly and strong, and the heavy falls are confined to "wet stations" in the west of Great Britain and of Ireland.

November 7th.

Carnarvon.—Snowdon (Cwm Dyli) No. 11 .....*2·60 in.* or *2·0* per cent.

November 9th.

Cumberland.	*in.*	or %
Rosthwaite (Moraine) ..	*2·63*	*2·5*
Buttermere (Hassness) ..	*2·54*	*2·4*

Limerick.	*in.*	or %
Abbeyfeale (Springmount School	2·88	6·4

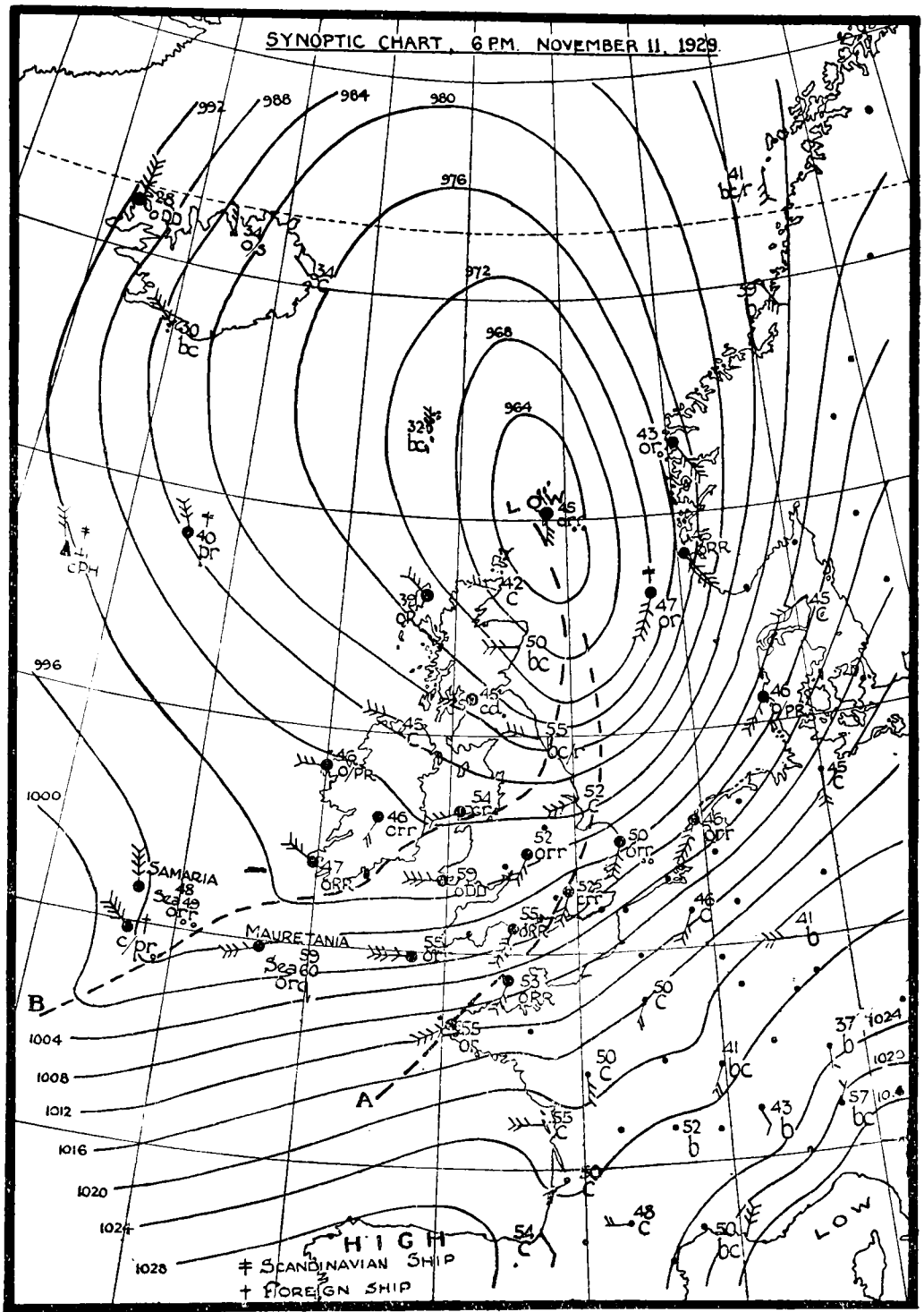
November 11th.

Devon.	*in.*	or %
South Brent (Badworthy)	*2·77*	*3·1*
Princetown (H.M. Prison)	*3·46*	*3·5*
Postbridge (Archerton) ..	*3·24*	*3·7*
Postbridge (Warren House Inn)	*3·59*	*4·6*
Chagford (Fernworthy) ..	*3·41*	*4·1*
Chagford (Metherall) ..	*3·04*	*3·8*
Chagford (Thornworthy) ..	*3·20*	*4·1*
Holne (Church Pk. Cottage)	*3·17*	*3·9*
Challacombe	*2·52*	*3·7*
Somerset.		
West Porlock (Underway)	*2·84*	*5·3*
Culbone (Lillycombe) ..	2·97	5·3
Cutcombe (Wheddon Cross)	*2·90*	*5·1*
Exford (Foxcombe) ..	*3·26*	*5·7*
Winsford	*3·17*	—
Derbyshire.		
Buxton (Portobello Bar) ..	2·87	4·6
Buxton (Stanley Moor) ..	2·70	4·5
Buxton (Burbage Edge) ..	2·58	4·4
Lancashire.		
Duddon Valley (Seathwaite School)	2·95	3·1
Yorkshire.		
Slaidburn (Dunsop Houses)	2·50	3·7
Cumberland.		
Rosthwaite (The Moraine)	4·89	4·6
Buttermere (Hassness) ..	*3·20*	*3·0*
Westmorland.		
Patterdale (Greenside Mine)	*2·50*	*2·6*
Ambleside (White Craggs)	*2·59*	*3·4*
Rydal (The Hall)	*2·57*	*2·9*
Grasmere (The Wray) ..	*2·62*	*2·8*
Monmouth.		
Chepstow (Itton Court) ..	2·63	5·7
Glamorgan.		
Ystalyfera (Wern House)..	3·66	4·8
Rhondda W.W. (Llynfawr Reservoir)	4·98	5·3
Pontycymmer (Police Sta.)	*3·51*	*3·9*
Glyncorrwg Colliery ..	4·93	5·8
Ystradyfodwg (Tyntyla Hospital)	*3·09*	*4·4*
Treharris Service Res. ..	3·60	5·6
Mountain Ash (Darranlas Reservoir)	3·89	5·0
Rhondda (Castell Nos Res.)	4·72	5·1
Rhondda (Lluest Wen Filter)	6·20	6·0
Rhondda (Lluest Wen Res.)	8·31	7·2
Treherbert (Tynywaun) ..	5·25	5·0
Treorchy Pumping Station	3·63	4·7

Carmarthen.	*in*	or %
Llyn-y-fan Fach (Nant Coch)	*3·02*	*3·4*
Llyn-y-fan Fach (Troed-y-foel)	*2·55*	*3·5*
Brecon.		
Ystradgynlais (Yniscedwyn House)	3·52	5·1
Swansea W.W. (Nantyrwydd)	3·32	4·0
Glyn Neath (Pont Neath Vaughan)	3·30	5·2
Ystradfellte Reservoir ..	4·41	4·8
Aberdare (Nanthir Res.) ..	3·30	4·5
Cardiff W.W. (Llwynon R.)	2·66	4·0
Cardiff W.W. (Pont-ar-daf)	3·00	4·2
Taf Fechan (Pentwyn R. S.)	2·69	3·5
Cardiff W.W. (Cantreff Res.)	3·41	4·3
Cardiff W.W. (Beacons R.)	4·45	5·2
Taf Fechan (Neuadd Res.) No. 1	3·97	4·8
Taf Fechan (Neuadd Res.) No. 1A.	4·40	4·5
Taf Fechan (Neuadd Res.) No. 4	4·39	4·7
Taf Fechan (Neuadd Res.) No. 11	3·79	4·5
Taf Fechan (Neuadd Res.) No. 11A.	4·31	4·6
Talybont (Pentir-rhiw) ..	3·45	4·7
Trecastle (Blaenau-hydfer)	3·61	4·7
Swansea W.W. (Cray Res.) No. 1	3·70	4·6
Radnor.		
Birmingham W.W. (Claerwen)	2·80	4·1
Birmingham W.W. (Tynant)	3·10	4·6
Montgomery.		
Llangurig (Dernol) ..	2·82	5·2
Lake Vyrnwy	2·55	4·0
Merioneth.		
Blaenau Festiniog (Oakeley Quarries)..	*3·25*	*2·8*
Blaenau Festiniog (Llechwedd Q.)	*3·00*	*2·6*
Dolgelly (Dol-rhyd) ..	2·50	3·7
Carnarvon.		
Beddgelert (Council School)	*2·64*	*2·6*
Snowdon (Cwm Dyli) No. 11	*4·25*	*3·2*
Snowdon (Llydaw Intake) No. 10	*3·15*	*2·1*

On the 11th some rain occurred at practically every station in the British Isles. It is unusual for rain to be so widespread on any day and the falls at the 100 representative stations used in Table V were consequently examined. Some rain occurred at each of these stations, the fall exceeding a tenth of an inch at all but four stations. The mean values for the countries were England and Wales 1·06 inch; Scotland ·45 inch; Ireland ·41 inch and the British Isles as a whole 74 inch. It is not possible to give details of all the days on which more rain fell over the British Isles generally, but the only day with more rain which can be found readily is that of October 29th, 1911, when the general fall was ·80 inch. The rainfall of November 11th, 1929, and the associated meteorological conditions deserve therefore special comment. The details given below have been taken from the articles on "*The Storm of November 11th-12th*, 1929," by H. W. L. Absalom, *Meteorological Magazine*, 1929, p. 249 and "*The Heavy Rain of November 11th*, 1929," by Dr. J. Glasspoole, *Meteorological Magazine*, 1930, p. 32.

Over the British Isles generally the weather of Armistice Day, 1929, was the wildest experienced on that anniversary since its inception. Strong winds and gales accompanied by considerable falls of rain occurred in most districts. During Sunday, November 10th, relatively cold air spread eastwards over the country, and at 18h. barometric pressure had still an upward tendency even in extreme western districts. At 1h. on November 11th a strong south-westerly wind and a brisk fall in pressure were reported from the south-west of Ireland, and the synoptic chart suggested that a depression was centred probably not less than 400 miles south-west of the Hebrides. The main centre, travelling at 50 or 60 miles per hour on a north-easterly course reached the Hebrides at about 13h. and the Shetlands by 18h. while between 7h. and 18h. the barometric pressure at the centre decreased by probably more than 15 millibars. During the forenoon pressure fell at the rate of from 10 to 15 millibars in three hours in northern England and in Scotland. In the course of the day a secondary depression arrived from the west giving rise to a considerable trough-like extension of the main depression. The passage of this trough across the country during the night hours was associated with a noteworthy example of a line squall. Strong winds or gales from a south-westerly direction occurred in most districts, except perhaps in the northern half of Scotland. The gale was of relatively short duration in the south-west of Ireland and ceased before 10h. With the advance of the depression the wind increased generally and had reached gale force at places on the east coast of England by the early afternoon. The day was sunless apart from small amounts of sunshine in the morning in the south-eastern districts of England. Rain commenced late on the 10th in the south-west of Ireland, extending to Wales and the western parts of England and Scotland, reached London just as the service at the Cenotaph commenced at 11h. and continued to spread eastwards. The depression had a considerable



Synoptic Chart, 11th November, 1929, 18h.

BAROMETER.—Isobars are drawn for intervals of 4 millibars, 1,000 millibars = 29.53 mercury-inches.

WIND.—Direction is shown by arrows flying with the wind. Force, on the scale 0 to 12, is indicated by the number of feathers. A circle indicates calm. TEMPERATURE is given by figures in degrees Fahrenheit.

WEATHER is indicated by the following notation:—

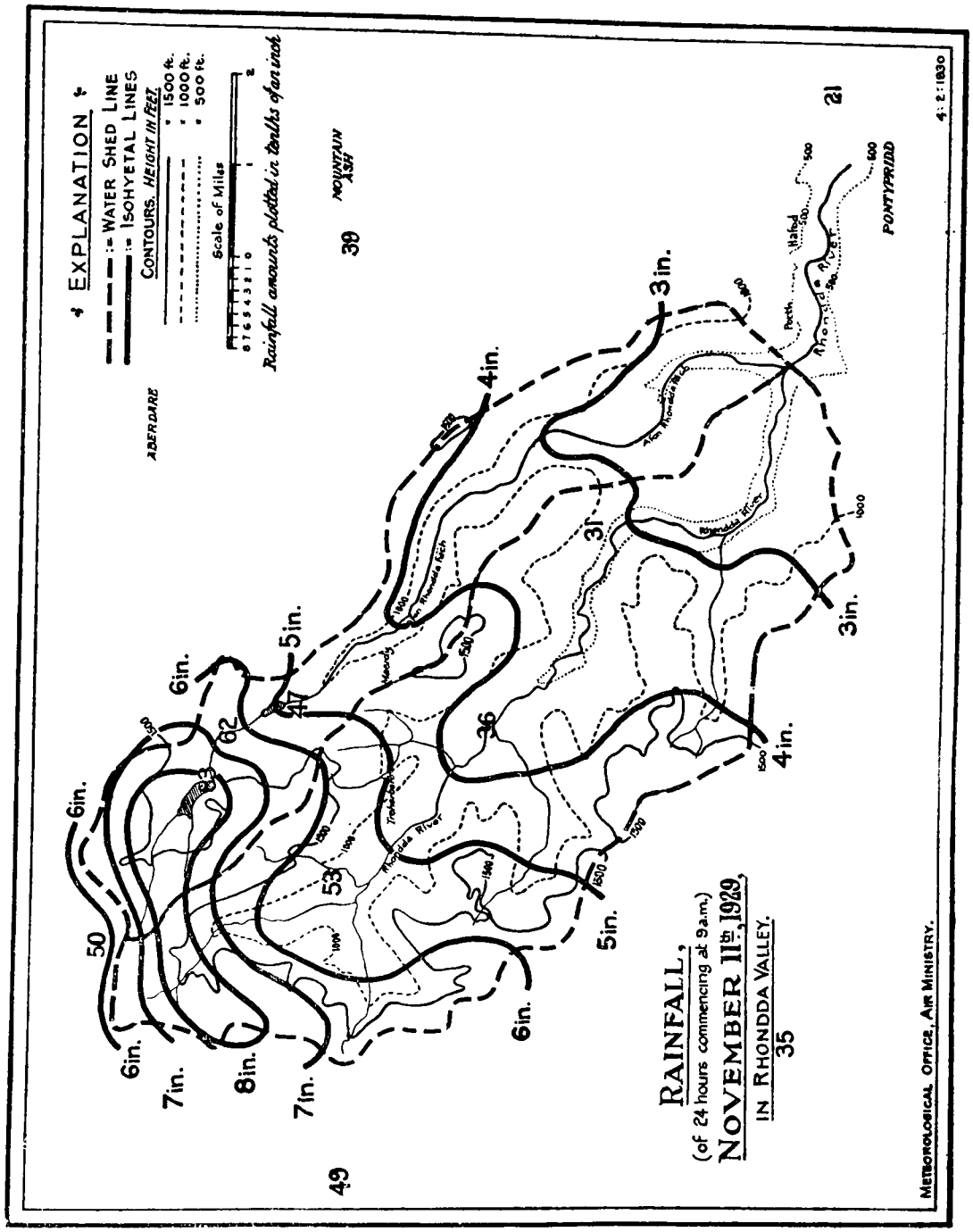
b, blue sky; bc, sky partly clouded; c, generally cloudy; o, overcast sky; p, passing showers; d, drizzle; r, rain; h, hail. Capital letters indicate "intense"; suffix $_o$ indicates "slight;" repetition of letters indicates continuity. ● = rain. ▲ = hail.

warm sector, the warm air at ground level reaching western Ireland an hour or two after 7h. and the western districts of England, Wales and Scotland early in the afternoon, by which time somewhat cooler air had spread over northern and western parts of Ireland. The approximate positions of the boundaries, at ground level, between the chief air masses at 18h. are shown by broken lines on the synoptic chart, A denoting the warm and B the cold front. As a result of the sweep of the warm air across the country temperature reached a high level for the season, maximum readings between 55° and 60° F. being numerous, while 60° F. was exceeded locally in north Wales and north-west England. In most parts of England and Wales the highest temperature was registered during the night hours of the 11th-12th shortly or immediately before the arrival of the cold air in the rear of the trough line. During the night hours the trough of low pressure became sharper than is indicated in the diagram, and at places in the Midlands and in the southern districts of England the transition from the warm to the invading cold air was marked by a sudden and considerable veer in wind direction, a rapid fall in temperature and an abrupt rise in barometric pressure.

The rainfall of November 11th exceeded an inch in the western half of England and Wales and along a broad strip of the south coast from the Isle of Wight to Tunbridge Wells. There was more than 2 inches over Dartmoor, Exmoor and Bodmin Moor, the greater part of Wales, the English Lake District and over a part of the extreme south of the Pennines from Buxton to Leek. Falls of more than 4 inches were confined, apart from South Wales, to small areas in the English Lake District and in Snowdonia. The distribution of the heavy rainfall in the Rhondda Valley was apparently due to a small disturbance subsidiary to the main depression. There is some evidence from the pressure maps that a secondary depression did cross that area, and the heavy rain is due to the sequence of " fronts " which maintained persistent and heavy rain.

The distribution of the rainfall over the Rhondda Valley is shown in the diagram map. The catchment area of the two streams draining to Porth is indicated, together with the contours of 500, 1,000 and 1,500 feet.

It should be noted, however, that so far as the Rhondda Valleys were concerned the rainfall was steady and persistent, and no comments of abnormal intensities, so typical of the passage of a " cold front," were noted. There is definite evidence that the rainfall ceased at 3h. on the 12th so that the whole of the rain can be credited to 18 hours. Comparing the effect of the rain in the area where over 8 inches fell, with that noted after the Cannington storm of August 18th, 1924, there is no doubt that the greatest intensity on November 11th was appreciably less than inch an hour and probably the intensity hardly exceeded half-an-inch an hour. Recording rain-gauges were in



Rainfall, Rhondda Valley, 11th November, 1929.

operation at Swansea, 19 miles to the west-south-west of Lluest Wen Reservoir, and at Cray Reservoir, 13 miles to the north-north-west. On the chart for Swansea there is some indication of a slight increase in the intensity of rainfall after 20h. on the 11th, but at Cray Reservoir

the rain was practically uniform throughout the whole time. The amounts for successive hours at these two stations are set out below :—

Rainfall during successive hours on November 11th, 1929.

For the hour ending.	10h.	11h.	12h.	13h.	14h.	15h.	16h.	17h.	18h.	19h.	20h.	21h.	22h.	23h.	24h.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Cray Reservoir	·22	·23	·21	·28	·24	·18	·18	·27	·28	·19	·20	·20	·19	·17	·20
Swansea (Morriston Park)	·08	·25	·24	·20	·19	·10	·11	·11	·07	·05	·03	·19	·25	·22	·08

At Cannington, on August 18th, 1924, 8 inches of rain and hail fell in 5 hours, so that the rainfall was nearly four times as intense as that of November 11th. The former rain was therefore associated with ascending currents of a much greater vertical velocity than prevailed during the cyclonic rain in the later case. At Cray Reservoir, 15 miles to the north-north-west, the water rose 5 feet in 10 hours on the 11th and this rise in the reservoir corresponds to 2 inches of water over the whole catchment area of 2,600 acres (4 sq. miles) in 10 hours.

The areas in the Rhondda Valleys covered by rainfalls exceeding certain specified amounts as estimated from the map, are set out below :—

More than 8 in.	2 square miles.	More than 4 in.	21 square miles.
,, ,, 7 in.	5 ,, ,,	,, ,, 3 in.	32 ,, ,,
,, ,, 6 in.	9 ,, ,,	,, ,, 2 in.	37·5 ,, ,,
,, ,, 5 in.	14 ,, ,,		

These estimates correspond fairly closely to those made in the case of the Cannington storm of August 18th, 1924, when the corresponding values were 3, 5, 7, 10, 13, 27 and 47 sq. miles.* There was an important difference, however, for on August 18th, 1924, the bulk of the rain fell in 5 hours, while on November 11th, 1929, the rain lasted 18 hours.

The general rainfall over the two areas draining to Porth is set out below, together with estimates of the average annual rainfall over the areas.

Catchment area.	Area.	General Rainfall.	
		Average Annual Rainfall.	Nov. 11th
	sq. miles.	in.	in.
Rhondda-fach River	12·0	82	4·8
Rhondda River	25·5	85	4·7
Rhondda Valley above Porth.. ..	37·5	84	4·7

* See *British Rainfall*, 1924, p. 246.

If it be assumed that the only loss from the whole Rhondda Valleys is that due to evaporation, and that the evaporation is 15 inches a year, then the mean flow at Porth would be of the order of 103 million gallons per day. The flow would, of course, be greater in winter and less in summer. The total volume of rain over the Rhondda Valleys on November 11th is computed to be 2,570 million gallons, of which the volumes in the two valleys were about 830 and 1,740 million gallons respectively. The bulk of this rain fell in 18 hours. The evaporation at this time of the year is small, and as there was fairly heavy rain on each day from November 5th to 10th, practically the whole of this volume of rain would have to flow past Porth. Following 6 days with very little rain there was on November 18th and 19th a general rainfall over the Rhondda Valleys above Porth of 6·7 inches of which about 60 per cent. or 4·0 inches fell during the 24 hours ending at 16h. on the 19th. This corresponds to about 2,200 million gallons of rain in 24 hours.

Flooding at Porth and Hafod has occurred repeatedly in earlier years, but never with such severity as in November, 1929. The last occasion on which very severe damage occurred was July, 1911. The hillsides are generally steep and bare, so that the run-off is rapid and the river rises and falls quickly. At Hafod, the river rose 2 ft. in $1\frac{1}{2}$ hours, with a total rise of 10 ft. on the 11th, and subsided soon after the rain ceased. Severe flooding occurred on the afternoon of the 11th, and on the four successive Mondays, November 18th, 25th and December 2nd and 9th, when additional heavy rains fell on saturated ground. A typical example of the many striking photographs of the flood havoc which are available is reproduced in the frontispiece to this volume. At Treherbert (Tynywaun) the rainfall from 16h. on November 18th to 16h. on the 19th amounted to 5·71 inches. In the upper Rhondda Valleys the subsequent heavy rains credited to the rainfall days were :—November 24th and 25th, nearly 4 inches, December 1st and 2nd, nearly 3 inches; December 6th, 7th, and 8th, nearly 5 inches. On November 11th some 625 houses were known to be flooded, while during the second flood the water entered over 700 houses. The general level on the second occasion was similar to that on the 11th.

The area has the disadvantage that subsidences over the coal measures are common. Thus bridges which were originally erected clear of the river in flood, now obstruct the flow. At Porth, a bridge which, when built in 1897 was some 8 ft. above the normal level of the river, now stands within a couple of feet. Similarly many houses which previously were clear of floods have subsided so that now they are in danger of flooding. Near Hafod, parts of the district have subsided 23 ft. through colliery workings since 1875.

November 15th.

Kerry.—Kilgarvan (Inchimore) ..... *3·33 in.* or *2·9* per cent.

November 18th.

	in.	or %
Devon.		
Whitchurch (Langstone) ..	*2·65*	*3·9*
Tavistock	*2·56*	*4·1*
South Brent (Badworthy) ..	*3·00*	*3·4*
Ashburton (Hele House) ..	*2·79*	*4·4*
Princetown (Wydemeet) ..	*2·88*	*3·8*
Princetown (H.M. Prison)	*3·86*	*3·8*
Postbridge (Archerton) ..	*3·29*	*3·8*
Chagford (Fernworthy) ..	*2·65*	*3·2*
Chagford (Metherall) ..	*3·05*	*3·8*
Chagford (Thornworthy) ..	*2·78*	*3·6*
Holne (Church Park Cot.)	*3·74*	*4·6*
Lancashire.		
Coniston (School Garden) ..	3·05	3·8
Westmorland.		
Ambleside (Wansfell) ..	2.53	3·4
Kentmere Head Res. ..	*3·10*	*2·9*
Monmouth.		
Abertillery (The Park) ..	*2·60*	*4·3*
Glamorgan.		
Felindre (Upper Lliw) ..	2·61	3·8
Sketty (Rhydyrhelyg) ..	2·63	4·8
Clydach (Wernfadog) ..	3·17	5·3
Ystalyfera (Wern House) ..	*3·49*	*4·6*
Briton Ferry (Brysiriol) ..	3·03	5·5
Briton Ferry (Cefn Court) ..	3·05	5·4
Neath (Cimla Reservoir) ..	2·67	4·6
Neath (Gnoll Reservoir) ..	2·60	4·5
Neath (Bryn-Teg)	2·91	5·1
Neath (Glynfelin)	3·28	5·2
Rhondda W.W. (Llynfawr)	*3·41*	*3·6*
Pontardawe (Plas Cilybebyll)	3·57	4·8
Pontycymmer (Police Sta.)	4·05	4·5
Glyncorrwg Colliery ..	*3·79*	*4·4*
Treorchy Pumping Station	*3·24*	*4·2*
Ystradyfodwg (Tyntyla Hospital)	*3·78*	*5·3*
Glamorgan.		
Treharris Service R. ..	*3·06*	*4·7*
Mountain Ash (Darranlas Reservoir)	*3·63*	*4·7*
Rhondda (Castell Nos R.)	*3·35*	*3·6*
Rhondda (Lluest Wen F.)	*3·19*	*3·1*
Rhondda (Lluest Wen R.)	*3·31*	*2·9*
Treherbert (Tynywaun) ..	*3·79*	*3·6*
Swansea W.W. (Cray R.) No. 1	*2·65*	*3·3*
Swansea (Victoria Park) ..	2·62	4·6
Carmarthen.		
Llyn-y-fan Fach (Nant Coch)	3·48	4·0
Llyn-y-fan Fach (Troed-y-Foel)	3·25	4·4
Brecon.		
Ystradgynlais (Yniscedwyn H.)	*3·10*	*4·5*
Swansea W.W. (Nantyr-wydd)	*2·83*	*3·4*
Aberdare (Nanthir R.) ..	*2·56*	*3·5*
Cardiff W. W. (Beacons Reservoir)	*2·70*	*3·2*
Taf Fechan (Neuadd Res.), No. 1	*3·43*	*4·1*
Taf Fechan (Neuadd Res.), No. 1A	*3·61*	*3·7*
Taf Fechan (Neuadd Res.), No. 4	*3·57*	*3·8*
Taf Fechan (Neuadd Res.), No. 11	*3·34*	*4·0*
Taf Fechan (Neuadd Res.), No. 11A	*3·64*	*3·9*
Talybont (Pentir-rhiw) ..	*2·55*	*3·5*
Trecastle (Blaenau-hydfer)	*2·60*	*3·4*
Down.		
Mourne Mountains (Fofanny R.)	*2·70*	*3·5*

November 19th.

	in.	or %
Devon.		
Princetown (H.M. Prison)	*3·55*	*3·5*
Postbridge (Archerton) ..	*2·53*	*2·9*
Postbridge (Warren Inn) ..	4·39	5·7
Membury (Green Down) ..	2·50	5·7
Lydford (Naseby)	*2·52*	*3·8*
Dartmoor (Swincombe) ..	*2·66*	*3·4*
Dartmoor (Fox Tor) ..	*2·70*	*3·6*
Cumberland		
Buttermere (Hassness) ..	*2·53*	*2·4*
Westmorland		
Grasmere (The Wray) ..	*2·63*	*2·8*
Glamorgan.		
Rhondda W. W. (Llynfawr R.)	*3·44*	*3·6*
Maesteg (Neath Road) ..	3·06	4·1
Ystradyfodwg (Tyntyla H.)	*2·51*	*3·6*
Mountain Ash (Darranlas R.)	*2·89*	*3·7*
Rhondda (Castell Nos R.) ..	*3·67*	*3·9*
Glamorgan.		
Rhondda (Lluest Wen F.) ..	*3·35*	*3·3*
Rhondda (Lluest Wen R.)	*3·56*	*3·1*
Rhymney Bridge Reservoir	*2·64*	*3·6*
Treherbert (Tynywaun) ..	*3·80*	*3·6*
Swansea W. W. (Cray Res.) No. 1	*2·95*	*3·6*
Carmarthen.		
Llyn-y-fan Fach (Nant Coch)	*3·42*	*3·9*
Llyn-y-fan Fach (Troed-y-Foel)	*3·10*	*4·2*
Brecon.		
Ystradfellte Reservoir ..	*2·67*	*2·9*
Aberdare (Nanthir Res.) ..	*2·68*	*3·7*
Trecastle (Blaenau-hydfer)	*3·30*	*4·3*
Carnarvon.		
Snowdon (Cwm Dyli) ..	*2·71*	*2·0*
Snowdon (Llydaw Intake)	*3·80*	*2·6*

An entry is given for November 16th at Portslade (Midways) of 3·43 inches or 9·7 per cent. of the total for the year, but this should not be included in the list of heavy falls because the gauge was read at 6h. The observer noted the intense intermittent falls occurring especially in the late afternoon, the general fall being heavy and continuous for about 14 hours, approximately from 10h. until midnight.

Mr. T. Davys Manning of Newlands, Seaford, notes that 2·21 inches fell in the 24 hours ending 15h. on the 16th. During the forenoon of the 16th a heavy swell was observed though there was little wind and waves were not crested. At high water, the sea was washing over the sea front opposite the Esplanade Hotel, a very unusual occurrence.

It may also be recalled that the trip of Members of Parliament in the airship R 101 was postponed, owing to the stormy weather, until the following Saturday, when further strong winds and rain caused the proposal to be abandoned. Wet Saturday afternoons were a feature of the weather in London at this time and the B.B.C. announcer referred to the weather of Saturday, November 16th, as such " that only a lunatic or an Englishman would have gone for a walk."

The distribution of the rainfall of November 18th was similar to that of the 19th and also to that of November 11th in that some rain occurred nearly everywhere in the British Isles, the heavy falls were confined almost entirely to the western half of England and Wales, and further the heaviest rain occurred in South Wales. Reference has already been made to the general fall of 6·7 inches over the Rhondda Valley above Porth for November 18th and 19th, of which 60 per cent. fell during the 24 hours ending at 16h. on the 19th.

On both November 18th and 19th more than 3 inches was recorded over Dartmoor and in South Wales, the areas being somewhat larger in the former case. On November 18th more than 3 inches was recorded in the English Lake District, but the fall in Snowdonia does not appear to have exceeded 2 inches. On November 19th, however, there was more than 3 inches in Snowdonia, but less than this amount in the English Lake District. The main type of distribution shown by the rainfall maps of November 11th, November 18th and 19th, i.e., with the heavy falls in the western half of England and Wales, is fairly common. The distribution is striking in that similar heavy falls did not occur in the west of Scotland and in that the heaviest rain occurred in South Wales.

In all three cases the heavy rain was associated with the passage of a deep depression to the north-west of Scotland with a high pressure system over the Bay of Biscay. The pressure gradient was much more intense than usual and strong south-west winds prevailed, reaching gale force in many places.

Rain spread in from the west. At 13h. on the 18th rain was confined to the extreme west of the British Isles, by 18h. it was fairly general and by 1h. on the 19th it had practically ceased in the west of Ireland. The passage of the warm front across England and Wales was unusually slow and it is apparent from the weather maps that it did not stretch as far north as Scotland. The supply of warm moist air from the south-west was well maintained during the whole of these days. The heavy rain in England and Wales was due to the unusual sequence of two depressions moving northwards to the west of Ireland. A short-lived burst of cold air in the rear of the first centre spread in over Wales and the south-west of England only to be driven out immediately by the new warm sector of the second depression, which was rapidly overtaking the first. This complicated sequence was only to be found over western England and Wales, elsewhere the rainfall was associated with the passage of a simple depression.

November 21st.

Devon.—Cornwood (Yealm Head No. 5). ..... *3·06 in.* or *4·1* per cent.

November 24th.

Devon.	*in.*	or %
South Brent (Badworthy) ..	*3·14*	*3·5*
Dean Prior Vicarage ..	*3·02*	*3·6*
Ashburton (Hele House) ..	*2·79*	*4·4*
Princetown (H.M. Prison)	*3·26*	*3·3*
Postbridge (Archerton) ..	*2·62*	*3·0*
Postbridge (Warren Inn) ..	*3·19*	*4·1*
Ilsington	3·44	5·9
Bovey Tracey (Hedge-barton)	3·41	4·8
Bovey Tracey (Edymead)	2·57	5·2
Moretonhampstead (Bullaton)	3·01	5·6
Moretonhampstead (Mardon)	*2·53*	*5·6*
Devon.	*in.*	or %
Christow (Kennick) No. 1 ..	*2·68*	*5·0*
Christow (Kennick) No. 2 ..	*2·78*	*5·3*
Chagford (Fernworthy) ..	*2·60*	*3·2*
Chagford (Metherall) ..	*2·99*	*3·8*
Christow (Laployd) ..	2·67	4·9
Chagford (Thornworthy) ..	*2·62*	*3·4*
Holne (Church Park Cottage)	*3·15*	*3·9*
Bickington (Higher Goodstone)	2·57	5·1
Monmouth.		
Ebbw Vale (Iron Works) ..	*2·55*	*4·1*
Glamorgan.		
Treherbert (Tynywaun) ..	*2·61*	*2·5*

The distribution of the rainfall of November 24th was similar to that of November 11th, 18th and 19th in that heavy rainfall occurred in South Wales and on Dartmoor. In both these areas falls of over 2 inches were widespread.

The rainfall occurred mainly during the night of the 24th and the early morning of the 25th and the heavy rain can be attributed to the boundary between the cool westerly air and the warmer saturated air in front remaining fairly stationary over South Wales and south-west of England, and the supply of cold and warm air being maintained.

There were heavy falls at Princetown, H.M. Prison, on November 11th, 18th, 19th and 24th. Little rain fell from the 12th to 17th, but there after rain fell on each of 27 days. For the 7 days November 18th to 24th the total was 13·57 inches; for the 12 days ending the

29th, 20·00 inches; for the 17 days ending December 4th 25·04 inches and for the 23 days ending December 10th 30·79 inches.

November 27th.

	in.	or %
Dorset.		
Wynford House	2·61	5·5
Devon.		
Lee Moor Clay Works ..	*3·25*	*3·9*
Yelverton (Oakfield) ..	*2·56*	*3·8*
Sheepstor (Burrator) ..	*2·50*	*3·6*
Dousland Reservoir ..	*2·60*	*3·8*
Devon.	*in.*	or %
South Brent (Badworthy)	*3·29*	*3·7*
South Brent (Beechfield) ..	*2·69*	*3·6*
South Brent (Didworthy San.)	2·52	4·0
Cornwall.		
Saltash (Pentillie Castle) ..	*2·50*	*4·2*

November 27th was another day on which falls exceeding 2 inches were widespread in the Devon Cornwall Peninsula. December was an unusually wet and stormy month. Although heavy falls on rainfall days occurred on as many as nine days, *viz.*, the 1st, 4th, 5th, 6th, 10th, 13th, 20th, 24th and 28th, they were widespread only on December 28th.

December 1st.

	in.	or %
Carnarvon.		
Snowdon (L. Llydaw Copper M)	2·60	1·6
Kerry.		
Kilgarvan (Inchimore) ..	4·07	3·6
Down.	*in.*	or %
Mourne Mountains (Fofanny R.)	*2·65*	*3·5*
Mayo.		
Aasleagh House	2·63	2·6

December 4th.

Devon.		
Bovey Tracey (Hedgebarton)	*2·60*	*3·6*
Devon.		
Christow (Laploy d) ..	*2·50*	*4·6*
Chagford (Metherall) ..	*2·97*	*3·7*

December 5th.

Ayr.—New Cummock (Power Station) .. .. 2·67 *in.* or 3·5 per cent.

December 6th.

Radnor.—Birmingham W.W. (Tynant) ..... *2·50 in.* or *3·7* per cent.

The rainfall was associated with a very intense depression which moved north-east across southern Ireland and North Wales.

December 10th.

Lancashire.—Duddon Valley (Seathwaite School) . *2·53 in.* or *2·7* per cent.

December 13th.

	in.	or %
Brecon—		
Ystradfellte Reservoir ..	*2·55*	*2·8*
Merioneth.		
Blaenau Festiniog (Oakeley Q.)	*2·55*	*2·2*
Merioneth.	*in.*	or %
Blaenau Festiniog (Llechwedd Q.)	*3·10*	*2·6*
Inverness—		
Loch Quoich (Glenquoich)	*2·56*	*2·2*

December 20th.

Isle of Man—Ramsey (North Promenade) ..... 3·37 *in.* or 7·0 per cent.

December 24th.

Lanark—Pollokshields (Maxwell Drive) ..... 2·50 *in.* or 6·1 per cent.

December 28th.

Yorkshire.	*in.*	or %
Oughtershaw Hall	3·11	4·4
Cumberland.		
Rosthwaite (Moraine)	*3·30*	*3·1*
Buttermere (Hassness)	*2·80*	*2·7*
Westmorland.		
Windermere (Holehird)	2·62	3·5
Ambleside (White Craggs)	2·61	3·4
Ambleside (Market Square)	2·74	3·4
Rydal (Stepping Stones)	2·81	3·3
Rydal	2·87	3·2
Rydal (High Close)	2·91	3·5

Westmorland.	*in.*	or %
Rydal (The Hall)	3·02	3·4
Grasmere (The Wray)	3·10	3·3
Glamorgan.		
Rhondda (Lluest Wen R.)	*2·67*	*2·3*
Merioneth.		
Festiniog (Hafod Fawr)	*2·58*	*3·1*
Blaenau Festiniog (Llechwedd Q.)	*2·90*	*2·5*
Carnarvon.		
Beddgelert (Council Sch.)	*2·60*	*2·6*
Snowdon (Cwm Dyli)	*3·80*	*2·9*

The rainfall of December 28th was associated with a deepening depression moving fairly quickly north-eastwards. It was centred to the north-west of Ireland at 18h. on the 28th and over the Outer Hebrides at 7h. on the 29th.

Rain fell practically everywhere over the British Isles on this day, falls exceeding 1 inch occurring over much of the north-west of Ireland. the Western Highlands of Scotland, the English Lake District, the Pennines, most of Wales and over Dartmoor and Bodmin Moor. Falls of more than 3 inches were confined to Snowdonia, the English Lake District and a small area to the north of Settle.

The depression gave the normal sequence of weather, the rainfall being heaviest over England and Wales because of the very marked difference in temperature between the air over the land and the invading air from the south-west. The western half of the country received the full force of the steady rain in front of the warm front followed later by the heavy rain due to the undercutting of the warm air by a considerably colder mass of air from the north-west in the rear of the disturbance. The intensity and duration of the rain was accentuated by the distribution of the land masses as is usual under such conditions.

8. MONTHLY RAINFALL IN 1929.

Information as to the rainfall of the months of 1929 is set out in this section in various forms :—

(1) Table XXII gives generalized values of the monthly and annual rainfall over the British Isles as a whole and also over the constituent countries separately.

(2) On page 87 details are given of some of the largest and smallest monthly totals of rainfall reported during 1929.

(3) In Table XXIII the monthly and annual totals of rainfall are set out for 400 stations, distributed evenly over the British Isles.

(4) Table XXIV gives the monthly and annual falls expressed as percentages of the averages for 1881 to 1915. It is confined to 150 stations, uniformly distributed over the British Isles, for which averages are available. At the end of this table, general monthly and annual percentage values are given for the British Isles and for each of the constituent countries.

(5) A set of twelve maps showing the distribution of the actual rainfall in each month, is reproduced in this article. A thirteenth map on a larger scale depicting the distribution of rainfall for the whole year is also reproduced. These maps were originally drawn on the much larger scale of 19 miles to the inch, and values from about 5000 separate stations were plotted on each map before the isohyetal lines were drawn. Details which would tend to confuse the maps on the small scale of the reproductions have been eliminated.

(6) A second set of twelve maps showing cartographically the distribution of the percentage monthly values given in Table XXIV and in the rainfall table published month by month in the *Meteorological Magazine* is also reproduced in this article. The corresponding percentage map for the whole year appears later in Section 10.

General Monthly Rainfall.

The general monthly values given in Table XXII have been computed by applying the percentage values given at the end of Table XXIV to the average general values for the period 1881 to 1915. These computed values have been subsequently slightly adjusted in

order that the totals for the year should agree with the totals given in Table XXVI which are based on a more exact determination as explained in the text accompanying that table.

Table XXII.—*General Rainfall for* 1929, *computed from the average,* 1881–1915, *by applying the general percentage values given in Tables XXIV and XXVI to the General Average Values.*

	England.	Wales.	England and Wales.	Isle of Man.	Scotland.	Ireland.	British Isles.
	in.	in.	in.	in.	in.	in.	in.
January	2·0	2·5	2·1	3·2	2·3	2·3	2·3
February	1·1	1·9	1·2	2·0	2·0	4·6	2·1
March	·3	1·0	·3	1·3	1·0	·9	·6
April	1·3	1·3	1·3	1·4	2·6	1·4	1·6
May	2·1	3·8	2·3	3·2	3·3	2·9	2·7
June	1·7	3·0	1·9	2·2	3·4	2·5	2·4
July	2·3	3·4	2·5	3·0	4·0	4·3	3·3
August	2·6	4·0	2·8	5·3	6·3	5·2	4·2
September	·8	2·0	1·0	1·0	2·8	1·2	1·5
October	4·3	7·7	4·8	7·9	7·1	5·3	5·4
November	6·9	12·4	7·7	7·5	6·4	6·2	7·2
December	6·6	11·7	7·3	8·5	9·6	9·1	8·5
Year	32·0	54·7	35·2	46·5	50·8	45·9	41·8

It is shown in Table XXII that the general monthly rainfall over the British Isles as a whole, varied from 0·6 inch in March to 8·5 inches in December. The general rainfall of 0·6 inch for March, 1929, is the smallest amount recorded in any month in the series back to 1870, *i.e.*, in 740 months. A similar amount occurred, however, in June, 1925, and February, 1891. The fall of 8·5 inches computed for December, 1929, has been exceeded in only two months in a similar period, *viz.*, in December, 1876, and December, 1914, when the general values were 8·9 and 8·6 inches respectively.

In dealing with longer periods than a month, the rainfall of October to December, 1929, of 21·1 inches, was perhaps most striking, for it just exceeded that of November, 1876, to January, 1877, which has been computed at 21·0 inches. December, 1876, to January, 1877, was ·4 inch wetter than November to December, 1929. The year 1893 furnished periods of two, three and four consecutive months with less rain, over the British Isles as a whole, than occurred in 1929, while both 1887 and 1921 gave drier periods of five or more consecutive months.

The general rainfall over the British Isles for the first nine months of 1929 was 20·7 inches and that of the last three months of the year 21·1 inches. The former amount was less than that of any other January to September in the last 60 years, the corresponding amounts in 1870, 1887 and 1921 being computed at 21·2, 21·3 and 22·9 inches respectively. The latter amount exceeded that of any other October to December, being 1·8 inches greater than that of the next wettest October to December, *viz.*, that of 1872 with 19·3 inches.

The individual values of Table XXII show a much wider range than usual. The general rainfall over England and England and Wales during March was only 0·3 inch. June, 1925, and February, 1891, were, however, drier over England and Wales than March, 1929, the general rainfall in the former cases being about ·1 inch. General values of 12·4 inches in November and 11·7 inches in December over Wales and of 9·6 inches and 9·1 inches for Scotland and Ireland respectively in December are also unusual. Details of the heavy rains of November, especially in South Wales, are given in Section 7. December, 1929, was probably the wettest month of any name in both Scotland and Ireland since December, 1876.

The corresponding general monthly percentage values are given at the end of Table XXIV. Each of the first four months was dry, with the exception of February in Ireland. As already mentioned March was the driest March on record. The rainfall of the four summer months, May to August, approximated to the average over the British Isles as a whole. England and Wales received rather less, and Scotland and Ireland rather more than the average amounts during these months. September was unusually dry, there being in the last 60 years only five drier Septembers over the country generally ; of these, 1907 and 1910 were appreciably drier, and 1888, 1894 and 1895 slightly drier. The last three months were all wet, but the rainfall during November and December was the most remarkable. November was easily the wettest November over the British Isles as a whole, in spite of the fact that over the greater part of the northern half of Scotland the rainfall was below the average. In parts of the south-west of England the month was the wettest of any name in the last 60 years. The rainfall of December over the country as a whole was only exceeded by those of 1876 and 1914.

It is worthy of comment that prior to January, 1929, the last 11 Januaries, with one exception, experienced a rainfall in excess of the average over the British Isles generally. The dry February of 1929 followed four wet Februaries and the wet December of 1929 four dry Decembers. November, 1929, gave a sequence of four wet Novembers and August, 1929, three wet Augusts. September, 1929, was dry in Scotland after a sequence of six wet Septembers there.

Extremes of Monthly Rainfall at Individual Stations.

(*a*) *Monthly Totals.*—More than 30 inches were recorded in both November and December in part of the English Lake District and in November on Snowdon. As much as 38 inches were recorded at Stye Head in Cumberland during November and 31·50 inches during December. Two readings on Snowdon for November are also worthy of special comment, *viz.*, 37·90 inches at Crib Goch and 34·50 inches at Wenallt. The largest monthly totals in Scotland and Ireland occurred in December, e.g., 23·19 inches at Ben More (Loch Eck) and 24·40 inches at Kilgarvan (Inchimore).

On the other hand, no rain at all was recorded during March over 183 sq. mi. of England. The stations with no rain occurred mainly to the east and north-east of London, *viz.*, to the east of Romford, near Berkhamsted and Banbury and to the north-east of Ipswich. The areas with no rain over England are given in *British Rainfall*, 1925 p. 71, for June, 1925, February, 1891, and June, 1921, as 4,900, 3,230 and 390 sq. mi. In each of these three months larger areas than in March, 1929, occurred in England with no rain.

A few selected stations which recorded no rain during the month are set out below :—

Middlesex—
- Kew Bridge W.W.
- Golders Green
- Stroud Green
- Tottenham (Drayton Road)
- Hornsey (High Street)
- Palmers Green (Broomfield Park)

Herts.—
- Watford (Park Road)
- St. Albans (Oaklands)
- Berkhamsted (Golf Club)
- Cheshunt (Manor House)

Bucks.—
- Hedsor (Bourne End)
- High Wycombe (Flackwell H.)

Oxford—
- Banbury (Cotefield)
- Bodicote School

Northants.—
- Hazelborough Woods
- King's Sutton (Manor House)
- Salcey Forest

Essex—
- Walthamstow (Ferry Lane)
- Waltham Abbey (Rammey Marsh)
- Vange Pumping Station
- Pitsea Pumping Station
- Little Wakering Vicarage

Suffolk—
- Newmarket Sewage Farm
- Bury St. Edmunds

Extremes of monthly percentage values.

Monthly totals of more than three times the average were recorded in November over large areas in the south-west of England and Wales. The largest values were :—346 per cent. at Ashburton ; 344 per cent. at Malvern ; 320 per cent. at Abergavenny and 305 per cent. at Cullompton.

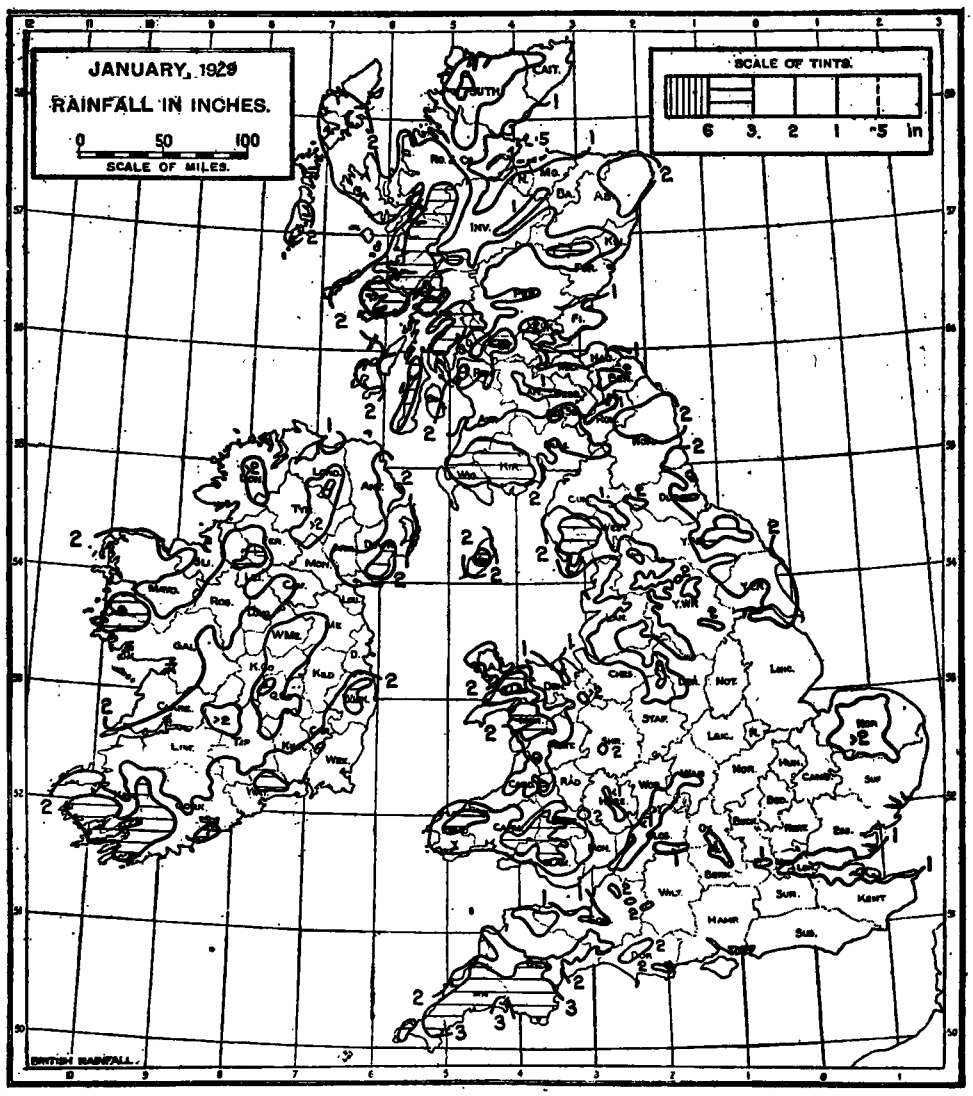
The areas with no rain in March have already been defined. As little as 10 per cent. of the monthly average occurred in both March and September. The large area in March in the south-eastern half of Great Britain is one of the most striking features of the rainfall of 1929.

The Rainfall and Weather of the Individual Months.

*** Maps showing the distribution of mean pressure and the movements of the centres of depressions for each month are published in the *Monthly Weather Report*.

January.—The weather during the month was, on the whole, quiet, very cold and mainly dry. There was a conspicuous paucity of westerly and south-westerly winds, while northerly and easterly winds occurred with considerable frequency.

The mean pressure for the month was everywhere in excess of the average, the excess being largest in the north of Scotland. The pressure



Rainfall, January, 1929.

was much more uniform than usual, there being a small gradient from the west to east instead of the usual steep gradient from the north-west to the south-east of the British Isles. Fewer depressions than usual passed across or near the British Isles and of these the majority passed from the north-west to the south-east.

As might reasonably be expected in association with the conditions described above, the rainfall was below the average in most parts of the

British Isles, the largest percentage values occurring along the east coast of Great Britain. There was less than half the average rainfall over most of the western half of Great Britain and the north-western half of Ireland, with less than one quarter in the neighbourhood of the Caledonian Canal and in part of Co. Donegal.

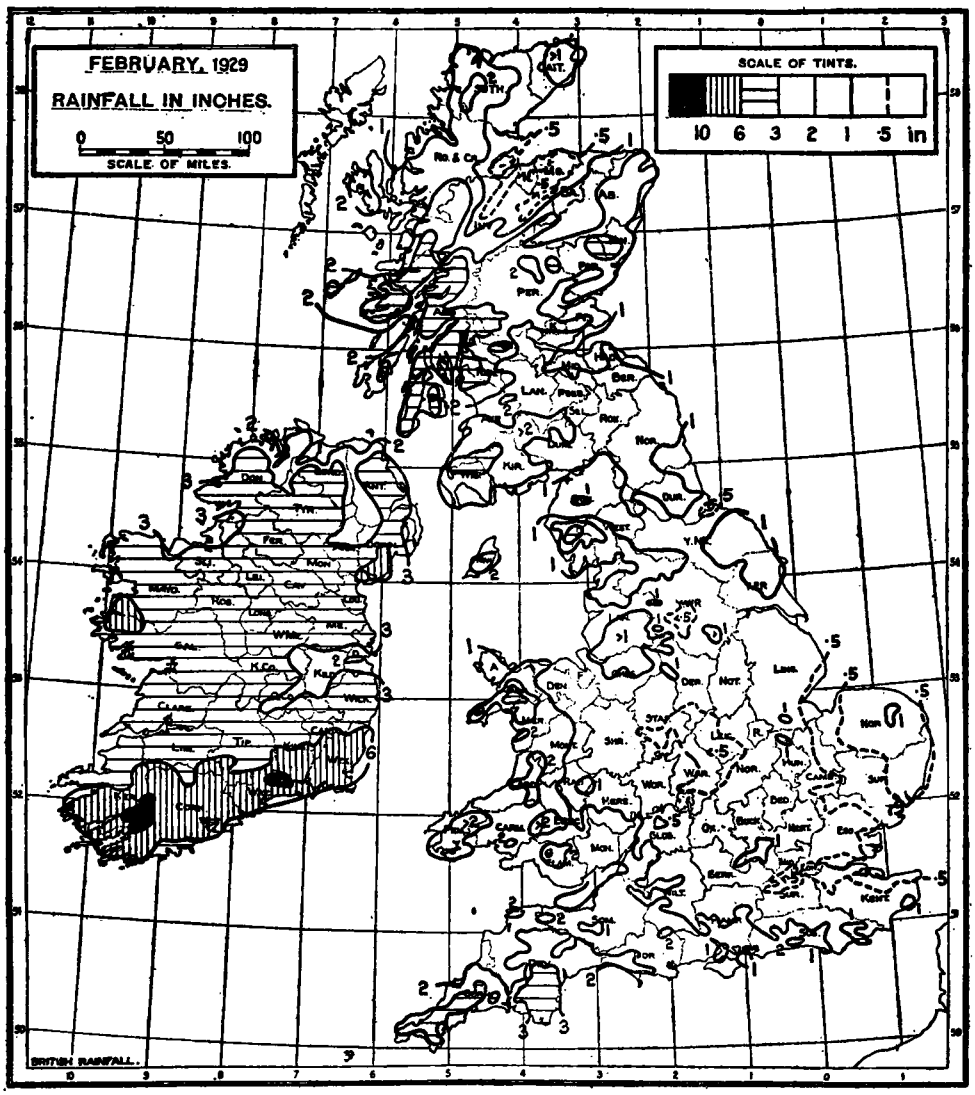
Precipitation occurred frequently in the form of snow, particularly during the period 5th to 9th and about the 16th and 27th. Up to 6 inches of snow fell in parts of Scotland on the 9th. Further snow, with

Rainfall, January, 1929, as per cent. of average.

strong northerly winds and some drifting, occurred in the north-east counties of Scotland from the 15th to 17th. Owing to the melting of snow on high ground, flooding occurred in East Lothian and parts of southern Scotland on the 29th.

The rainfall for the month as shown by the map in actual inches is remarkable for its uniformity, ranging from rather less than 1 inch in the neighbourhood of the Thames Estuary and the Firths of Forth and Tay to 6 inches in Snowdonia and the mountains of Kerry and Connemara.

February.—The outstanding feature of the weather of the month was the intense cold which prevailed in England from the 11th to the 17th. Conditions in Scotland and Ireland were generally less extreme than in England, although, apart from the south of Ireland, they were unusually cold. The weather of this week was the severest experienced generally in Great Britian since February, 1895. Temperature remained continuously below freezing point from the 11th to 17th



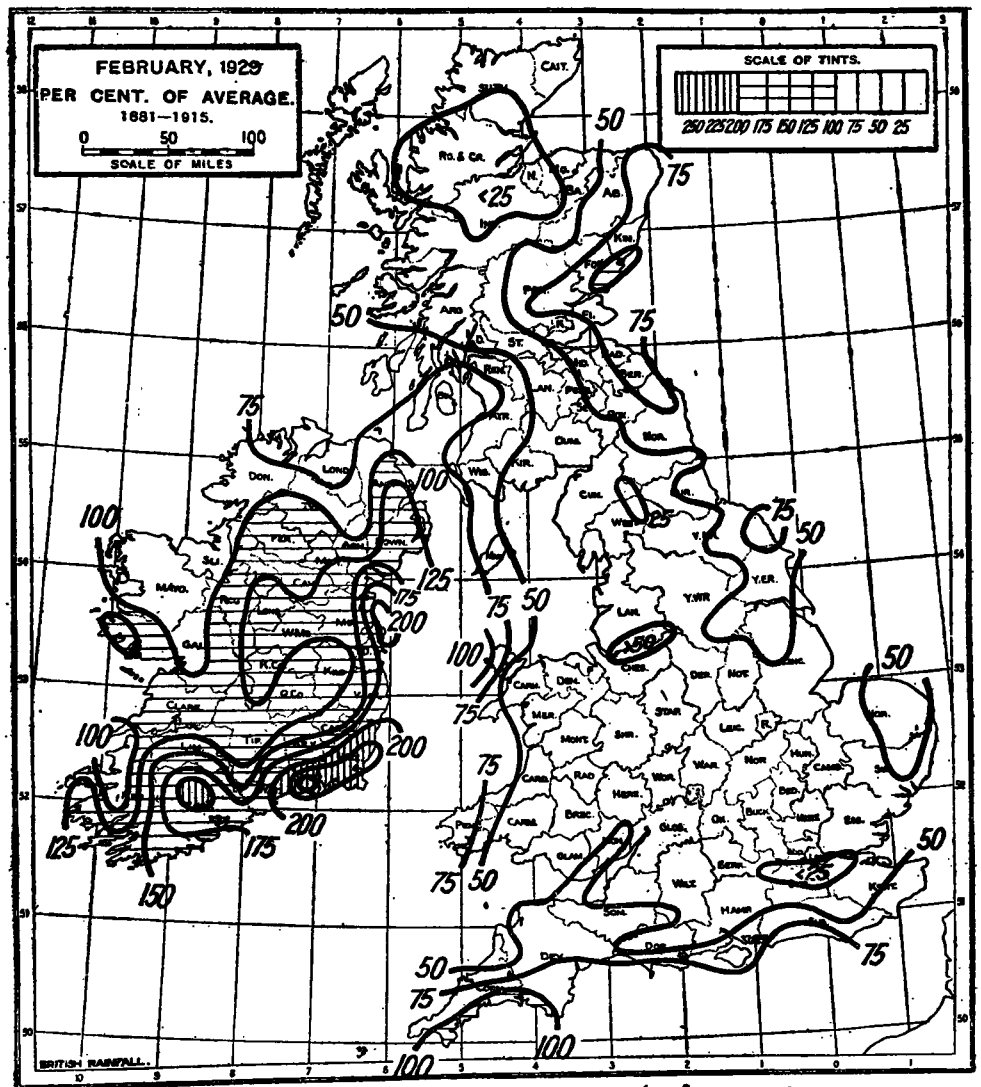
Rainfall, February, 1929.

over large areas of Great Britain and in some eastern districts from the 11th to the 20th.

Over most of Great Britain, conditions were mainly anticyclonic during the month and pressure generally was above the average. Over the south-western half of Ireland the pressure was, however, below the average. The trend of the isobars was roughly from south to north and the prevailing winds were from between south and east over Great Britain and from the south-west over the south-west of Ireland.

In many parts of Great Britain rivers became frozen and ice breakers were used in the Thames in an endeavour to keep the rivers open for traffic. Many canals and lakes were frozen over and it is reported that on Lake Windermere there were as many as 50,000 people on the ice at one time. Thousands of homes were inconvenienced by "frozen pipes" and unusually heavy demands were consequently made on water supplies.

The rainfall of the month was below the average everywhere in Great Britain, except in three small areas :—the south coast of Cornwall



Rainfall, February, 1929, as per cent. of average.

and Devon, part of Anglesea and the coast of Forfarshire. Apart from regions near the coast, the rainfall was nearly everywhere less than half the average and there was less than one quarter of the average to the south of London, to the east of the English Lake District and over a large part of the north of Scotland. The distribution over Ireland forms a striking contrast. There was more than twice the average in parts of the south-east and less than the average only in the north and at the mouth of the Shannon.

March.—March was on the whole quiet, sunny and abnormally dry, with, however, much mist or fog at night and in the early morning. There were some very warm days and frequent cold nights, a noteworthy feature of the weather of the month being the unusually large diurnal range of temperature.

Quiet anticyclonic conditions prevailed from the 3rd to the 19th and from the 27th to the 30th and the mean monthly pressure was everywhere appreciably in excess of the average. Winds were mostly

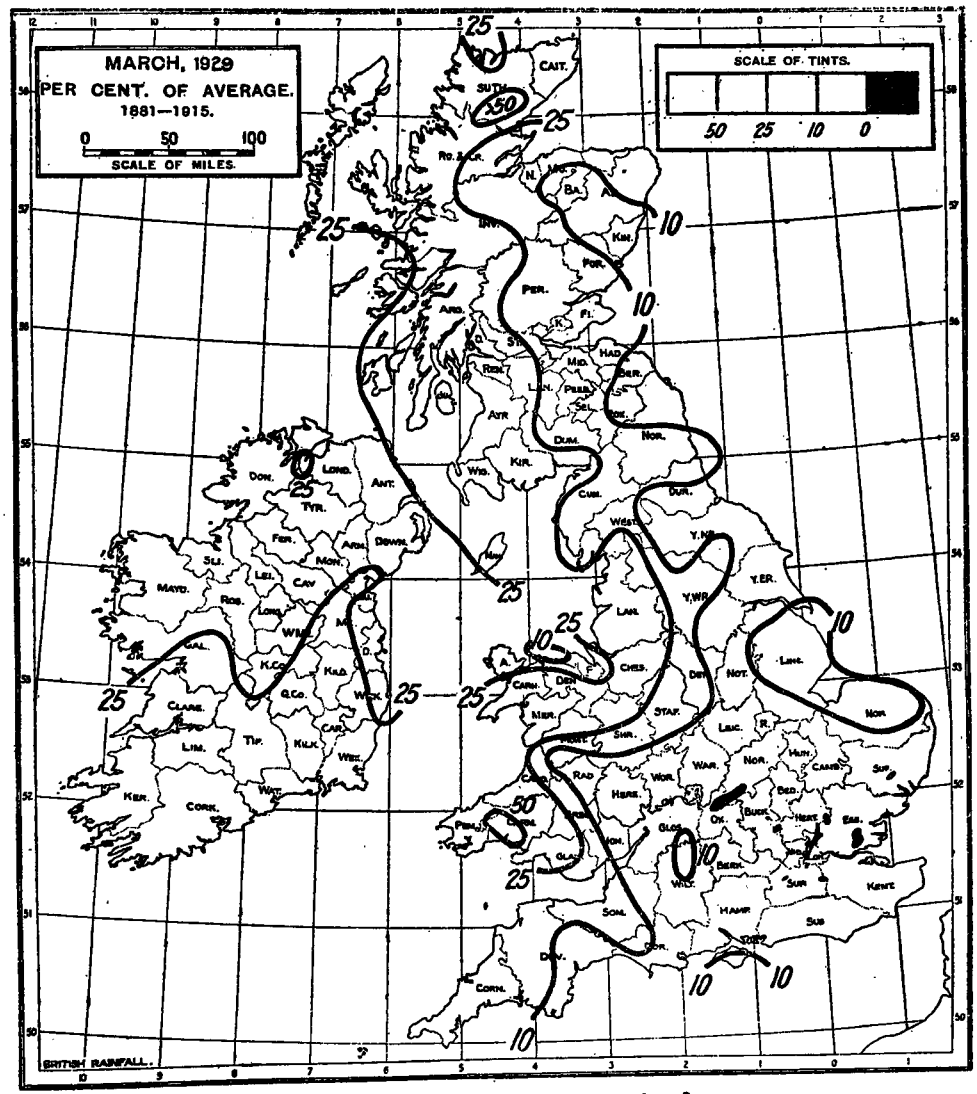
Rainfall, March, 1929.

light and there was a complete absence of gales. Winds were generally south-westerly to westerly over Scotland and southerly over Ireland; over England they were more variable in direction, northerly to easterly winds occurring with considerable frequency.

The rainfall of the month reached half the average amount over two small areas, *viz.*, in parts of Sutherlandshire and Carmarthenshire. There was less than 10 per cent. over most of the eastern half of the British Isles and in parts of the east of Scotland. No rain at all

occurred during the month at a number of stations in the south-east of England, especially in the Lea Valley, to the north-east of London. The areas with no rain are indicated on the maps and some representative stations are given at the beginning of this article. Further details of the drought are given in Section 3.

At no fewer than 17 out of the 40 representative stations with records covering 60 years dealt with in Section IV, March, 1929, was the driest March on record. At 3 stations March, 1929, was the driest

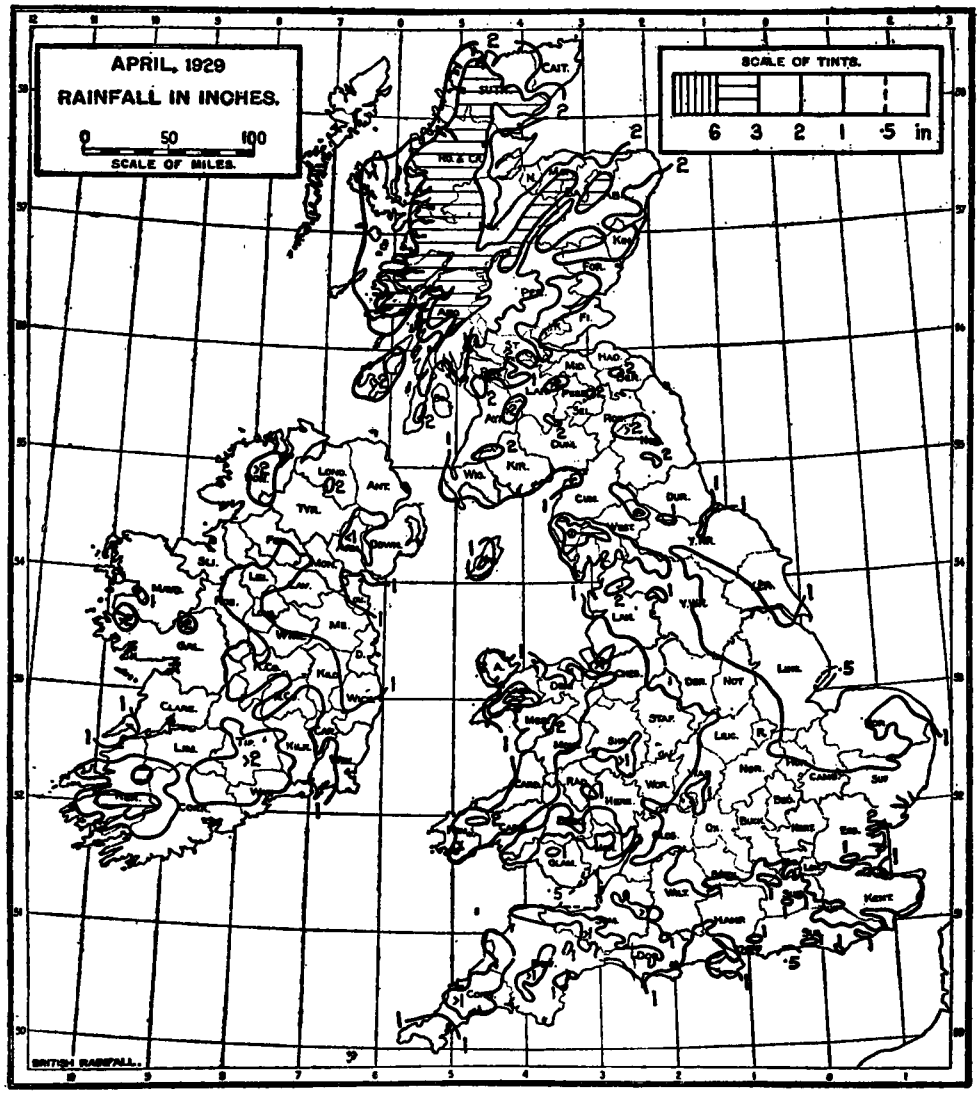


Rainfall, March, 1929, as per cent. of average.

month of any name, *viz.*, at Camden Square (London), Marchmont (Berwickshire) and at Aberdeen.

Over the British Isles as a whole March, 1929, was the driest March since before 1870, and ranks with February, 1891, and June, 1925, as the driest months on record. The total rainfall for the three months January to March, 1929, was half the usual amount, and less than that of any similar period in the last 60 years, the next driest being that of 1891, with 60 per cent. of the average.

April.—The main features of the weather of April were the deficiency of rainfall, the preponderance of northerly to easterly winds, and in Great Britain the absence of warmth and the frequency of severe ground frosts. During the month there was an unusually large amount of sunshine in Scotland and Ireland. More than 10 hours' sunshine was recorded daily at Cahirciveen during the period 9th to 12th and more than 11 hours daily at Stornoway from the 13th to 16th.



Rainfall, April, 1929.

The mean pressure for the month was everywhere in excess of the average, the excess being largest in the north of Scotland. The pressure was more uniform than usual, there being a gradient from the east to the west instead of the usual steep gradient from the north-west to the south-east of the British Isles. The gradient was therefore the converse of that shown by the map for January, 1929. As in January fewer depressions than usual passed across or near the British Isles, and of these the majority passed from the north-west to the south-east.

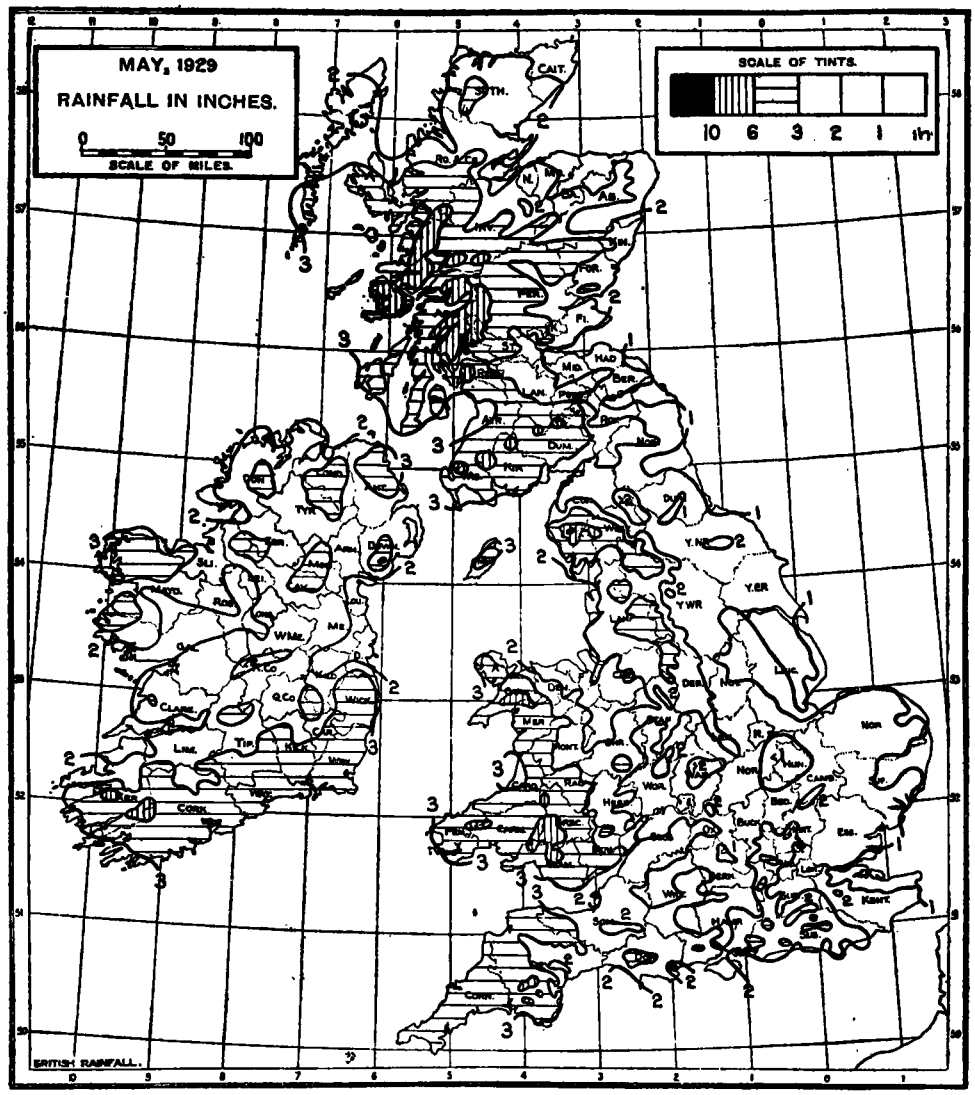
The percentage map for April resembles that for January in that deficiencies occurred practically everywhere. In April, however, areas with an excess occurred in the north-east of Scotland and to the north of London. There was less than half the average amount over most of the south-west of England and Wales, over a broad belt stretching across England from the Humber and the Wash to the Lancashire

Rainfall, April, 1929, as per cent. of average.

coast, part of the south-west of Scotland, stretching as far inland as Perthshire and over much of western and central Ireland. There was less than 25 per cent. near Sidmouth.

April, 1929, was the fifth consecutive dry month over the British Isles as a whole, the drought during these five months being particularly striking in England and Wales and in Scotland. In Ireland, however, the rainfall of February was appreciably in excess of the average.

May.—The weather during the first half of May was mainly cool and unsettled, with heavy rain from the 4th to the 8th and occasional thunderstorms, but with considerable sunny periods for a short while. After the 15th most days were rainless over the greater part of the country, with much sunshine and warm weather from the 22nd to the 28th. Thunderstorms, accompanied locally by heavy rain and hail, occurred over wide areas on the 24th, 26th and 27th.



Rainfall, May, 1929.

The mean pressure for the month was below the average everywhere except in the south-east of England. The pressure gradient from the north-west to the south-east of the British Isles was much steeper than that which usually occurs in May. As is generally the case under such conditions the largest percentage values occurred mainly in the western half of the land masses and the rainfall was below the average in the east of Great Britain. The occurrence of the

large percentage values in the south-west of England and Wales is attributable to the passage of depressions across these islands at lower latitudes than usual, accompanied by vigorous secondary depressions. This state of affairs occurred in other months, especially in November, and the persistence of this type of pressure distribution is one of the most striking features of the weather of 1929.

There was less than half the average over three large areas along the east coast of England, *viz.*, in East Anglia, to the west of Hull and

Rainfall, May, 1929, as per cent. of average.

in Northumberland. On the other hand more than 150 per cent. occurred over a small area in the Western Highlands of Scotland, along the south-east coast of Ireland and over a large part of the south-west of England and Wales. Over much of Cornwall the total for the month exceeded twice the average.

May, 1929, with 105 per cent. over the British Isles as a whole, was the first wet month of the year.

June was on the whole a cool month although the sunshine amounts exceeded the average in most districts, especially in the west. Unsettled weather during the first two weeks was accompanied by welcome rain, but the second half of the month was relatively dry generally.

The monthly means of pressure were below the average over most of the country. In the south there was a slight excess, but in the north the mean pressure was appreciably below the average. The pressure gradient from the north-west to south-east of the British Isles was

Rainfall, June, 1929.

much greater than usual, as was the case in May. The rainfall was again above the average over most of the western half of the land masses and below in the east, but in this month there was marked excess also in the extreme north of Scotland. This is attributable to the passage of depressions to the north of Scotland in a somewhat unusual direction, *viz.*, from the north-west to south-east. A rain spell occurred in the north-west of Scotland during the middle of June (*see* Section 4).

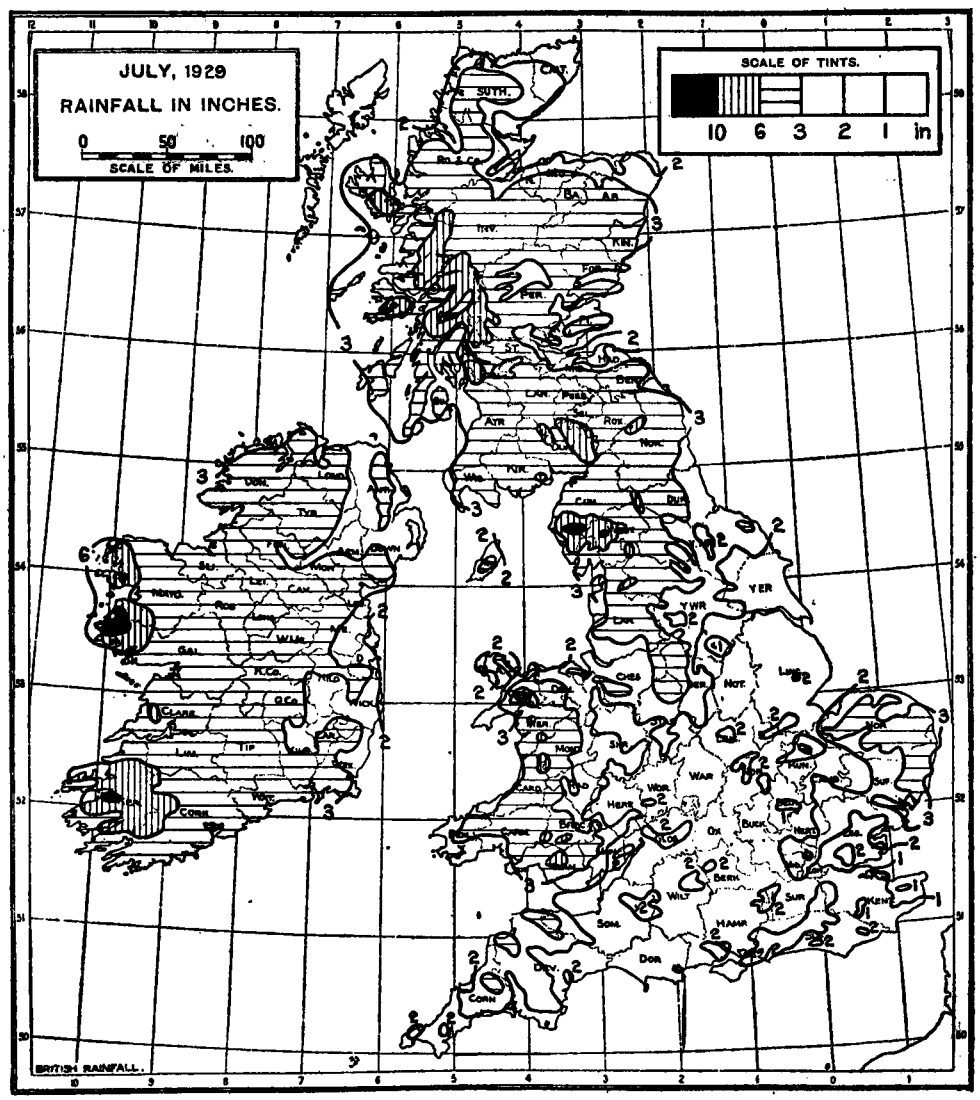
The rainfall for the month was less than half the average over a large area stretching from East Anglia to the north of London, over much of Yorkshire, and near Limerick. Falls of more than 150 per cent. of the average were confined almost entirely to large areas in the west and north of Scotland, more than twice the average being recorded at Wick.

The rainfall of the first six months of the year was particularly striking for it exceeded the average only in the extreme south-east of

Rainfall, June, 1929, as per cent. of average.

Ireland, while over appreciable areas there was less than half the usual amount. This occurred in the east of Kent, Suffolk, Norfolk and Lincolnshire, in the neighbourhood of Bath and Bristol, near Rhayader in central Wales, over a large part of the Pennines stretching from Kirkby Stephen to Sheffield and over most of Ross and Cromarty. The rainfall was less than two-thirds of the average for this period over most of the country, the largest percentage values occurring in the eastern half of Ireland and the south-west of Wales.

July.—Although the mean temperature for the month was generally within 1°F. of the average, and the means for rainfall and sunshine were not remarkable, the weather when considered in greater detail was not lacking in interest and variety. About the 12th a large anticyclone became established over the British Isles and caused in most places a succession of days of unbroken sunshine, with high maximum temperatures. Following on the six and seven months of deficient rainfall this period was one of considerable anxiety for those

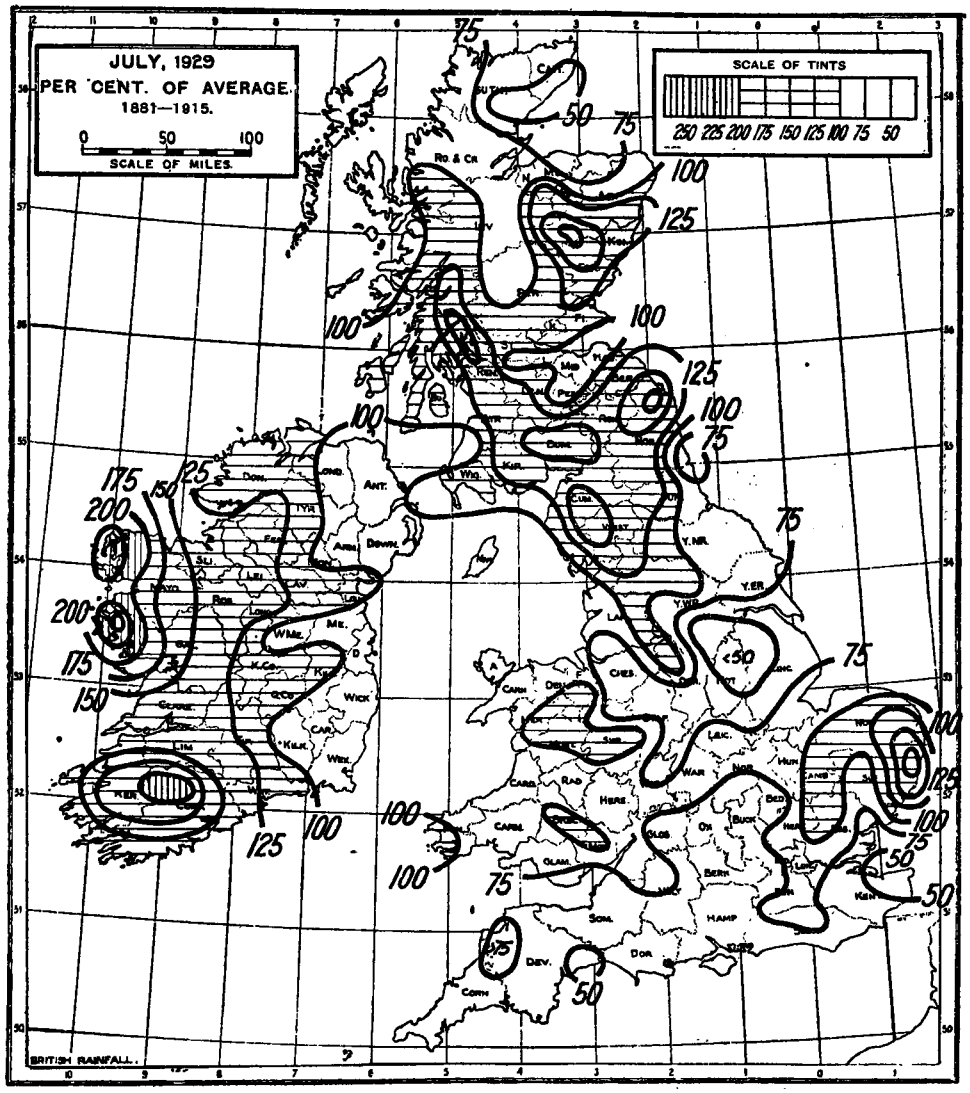


Rainfall, July, 1929.

responsible for maintaining water supplies, especially in England and Wales. Some details of the heavy rain of the 20th, when a line squall, accompanied by thunderstorms, crossed the south of England, are given in Sections 6 and 7.

The mean pressure for the month was generally a little above the average, especially in the south of England. The effects of the periods of cyclonic rain near the beginning and end of the month were outweighed by the influence of the anticyclone which covered the whole

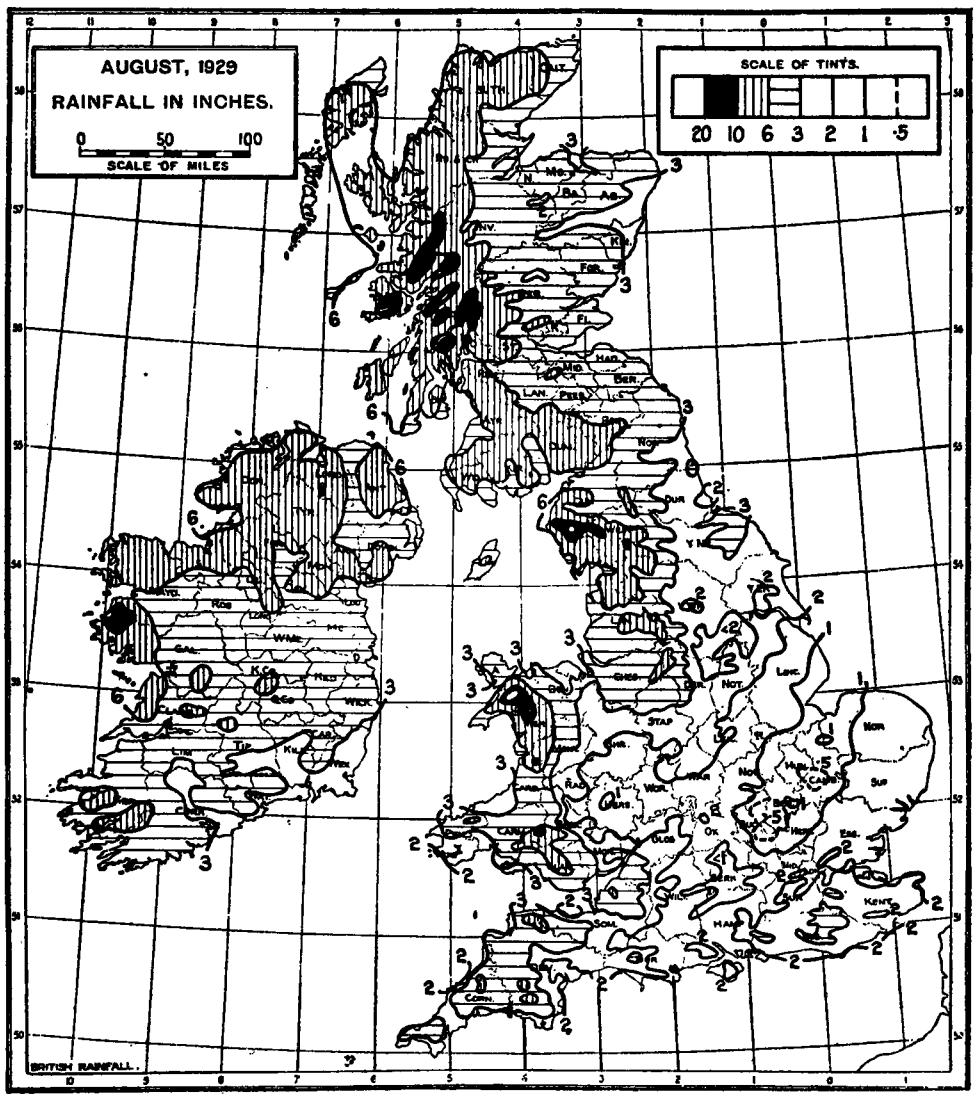
country during the middle of the month. The large percentage values in East Anglia were due mainly to the heavy rain of July 3rd and 4th, associated with the passage of two depressions in sequence to the east of Kent (*see* Section 7). A number of depressions passing across Scotland and Ireland gave heavy rain in those areas. In Ireland the largest fall was nearly everywhere on the 21st or 22nd, when a small depression remained nearly stationary between the Scillies and the south coast of Ireland.



Rainfall, July, 1929, as per cent. of average.

The total rainfall for the month was less than half the average near Sidmouth, over much of Nottinghamshire and in the east of Caithness and Sutherlandshire. Falls of more than 150 per cent. occurred in East Anglia, the English Lake District, in parts of Dumfries, Northumberland, Argyll, Aberdeen and Forfarshire and over much of western Ireland. In the latter region there was more than twice the average, with 225 per cent. at Ballynahinch Castle in Connemara.

August.—In most parts of the British Isles the mean temperature was within 1°F. of the average. Sunshine totals exceeded the average in the south-east of England, but elsewhere there was in general a deficiency, particularly in Scotland and Ireland. The month was generally fair and dry over most of England and Wales, and unsettled and wet over Scotland and Ireland. Over the northern half of the British Isles the pressure distribution was of the cyclonic type during

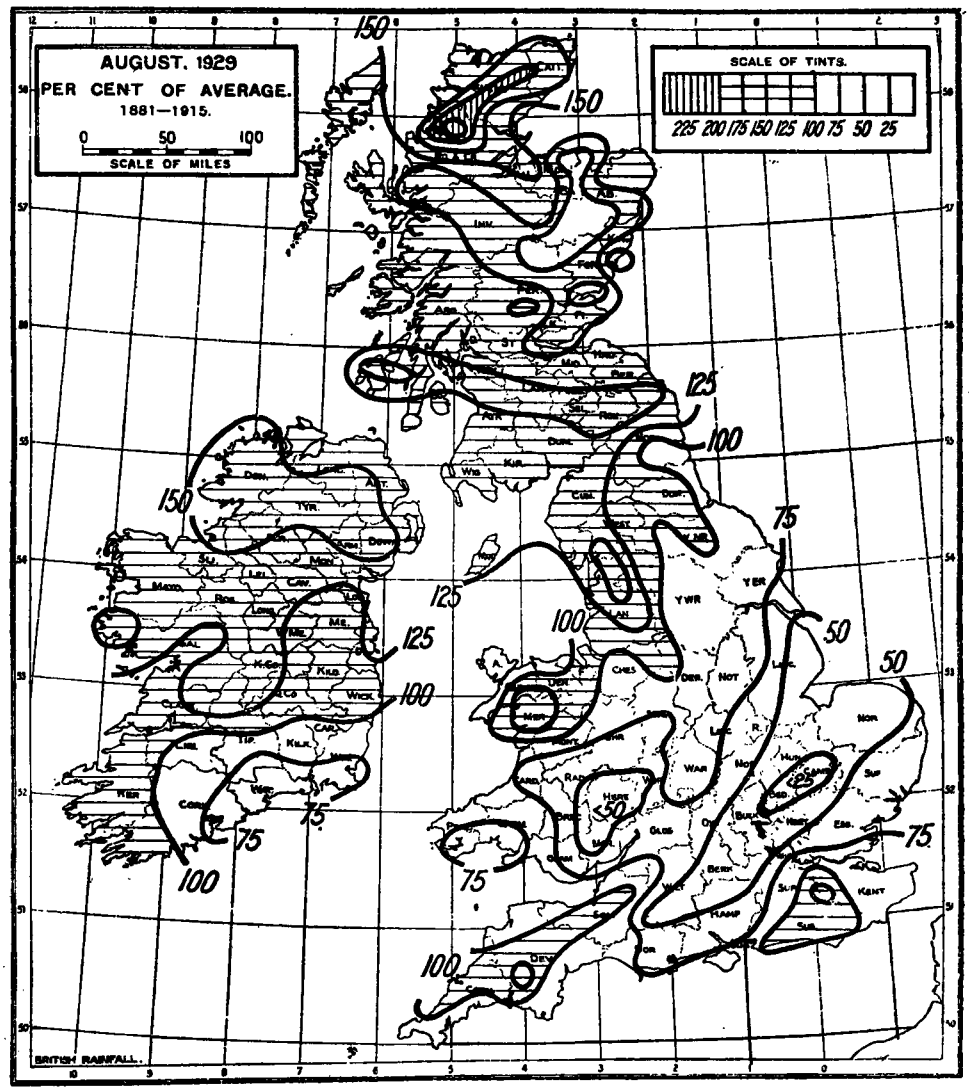


Rainfall, August, 1929.

the greater part of the month and in these districts the mean pressure was below the average. In the southern half, where anti-cyclonic conditions often prevailed, the mean pressure exceeded the average.

The total for the month was less than half the average over a wide strip stretching from the Wash to Salisbury Plain and in Herefordshire. There was less than 25 per cent. over most of Bedford and Cambridgeshire. Falls of more than 150 per cent. were widespread in northern

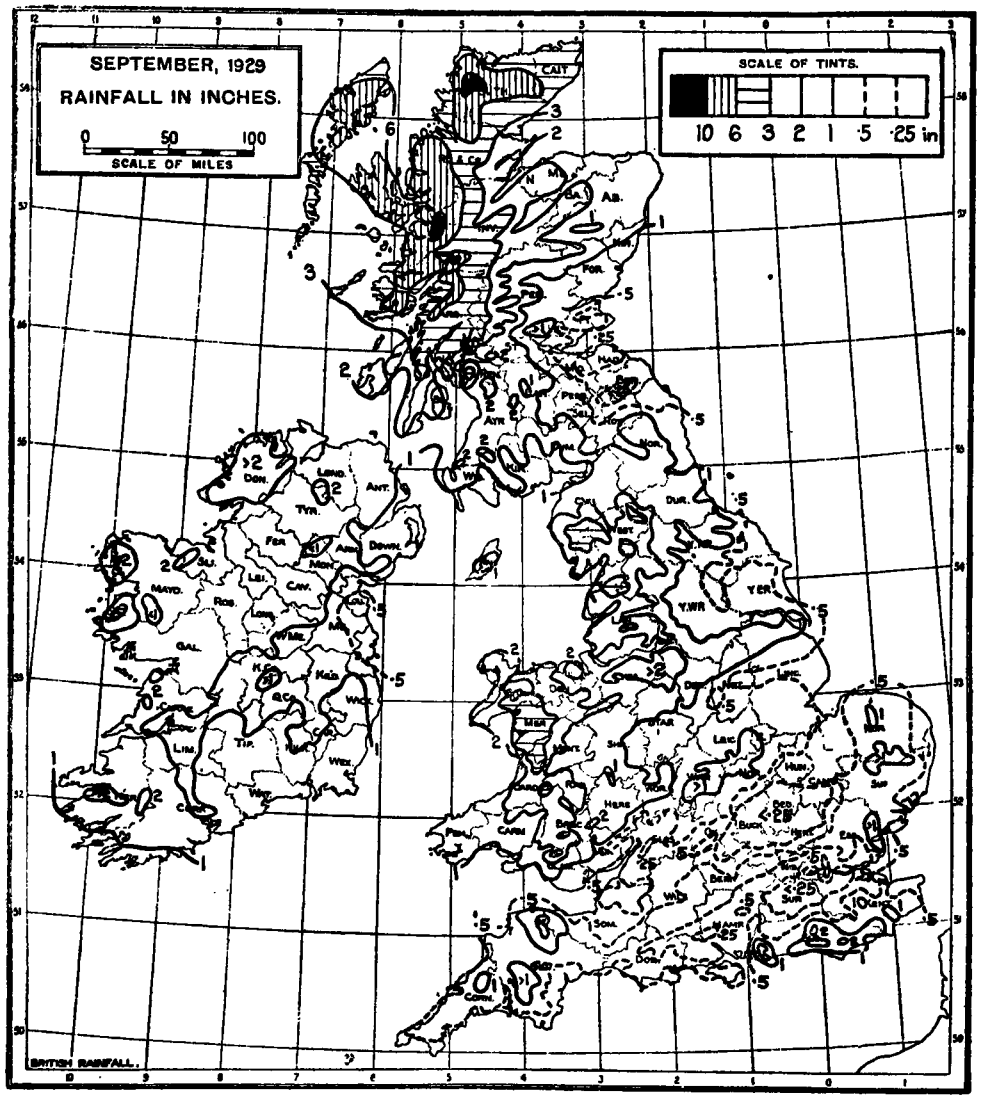
Ireland, northern Scotland and over a belt across the country from the Isle of Islay to Northumberland, as well as locally in the north of Lancashire and near Montrose. More than twice the average occurred in the extreme north of Scotland. At Loch More (Achfary) in Sutherlandshire, rain fell on every day from August 8th to September 10th (*see* Section 4). The relatively large percentage values in the south-west of England were due in part to the heavy rain of August 3rd in that area (*see* Section 7).



Rainfall, August, 1929, as per cent. of average.

The distribution of the rainfall of August is brought out by the general percentage values:—England and Wales 84, Scotland 141, Ireland 123, British Isles 110. Over Scotland the rainfall of each of the four summer months May to August was in excess of the average, over Ireland, May, July and August exceeded the average, while over England and Wales only May was wet, and then by little more than the average.

September.—The weather was mainly fine and warm, especially during the first half of the month. There was a remarkable scarcity of rainfall, except in the extreme north-west of Scotland, which was practically the only area to be affected by Atlantic depressions, whose tracks lay well to the north-west of the British Isles. Droughts and dry spells were unusually frequent (*see* Section 3). There were no droughts at the selected stations in Table VIII after September.



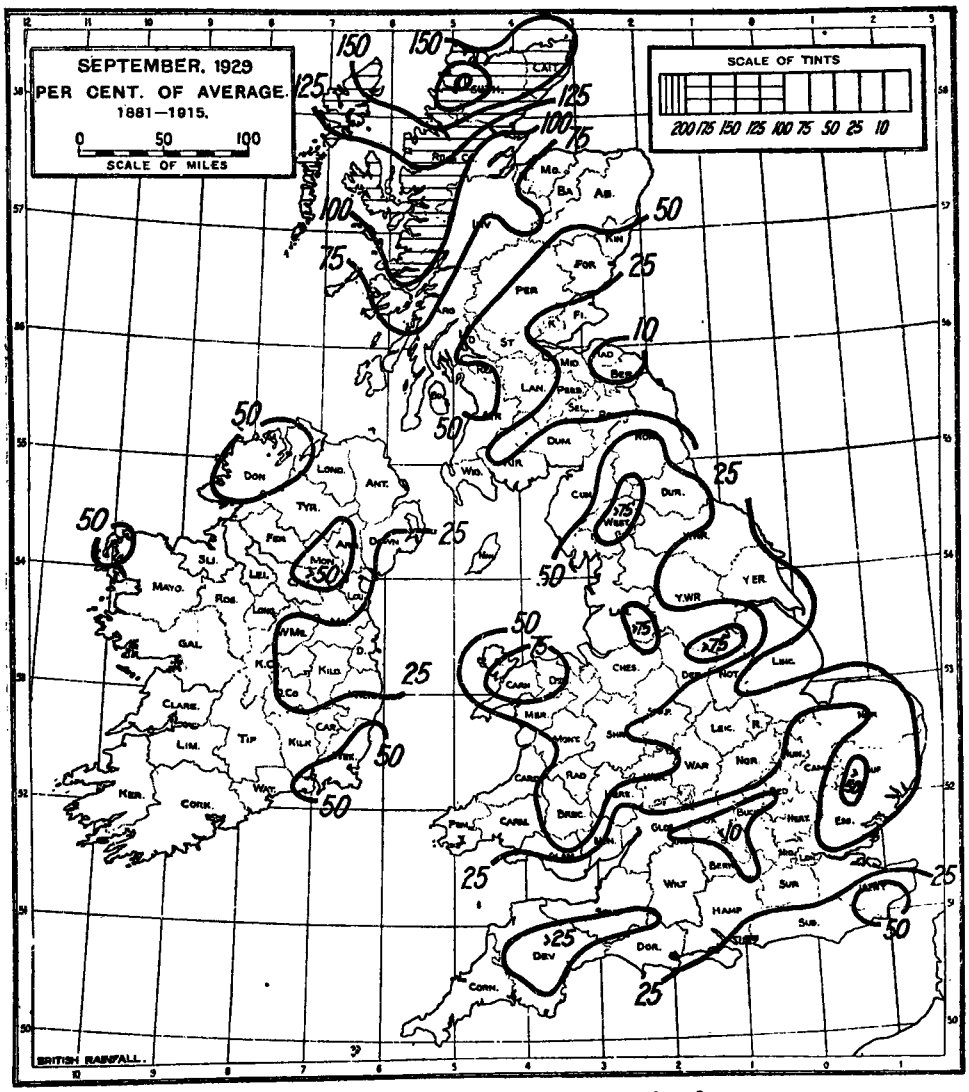
Rainfall, September, 1929.

The mean pressure for the month was above the average everywhere except in the northern half of Scotland. The excess was greatest in the south of England.

The total rainfall for the month exceeded the average only in the north of Scotland. At Loch More (Achfary) as much as 205 per cent. of the average was recorded. Falls of more than 75 per cent. were confined to the north-western half of Scotland, North Wales and small

areas round Appleby, Manchester and Rotherham. There was less than 25 per cent. over much of the South of England, the east coast of England, the south-east of Scotland and the neighbourhood of Dublin; and less than 10 per cent. over a large part of the Thames Valley near Oxford as well as in Berwickshire.

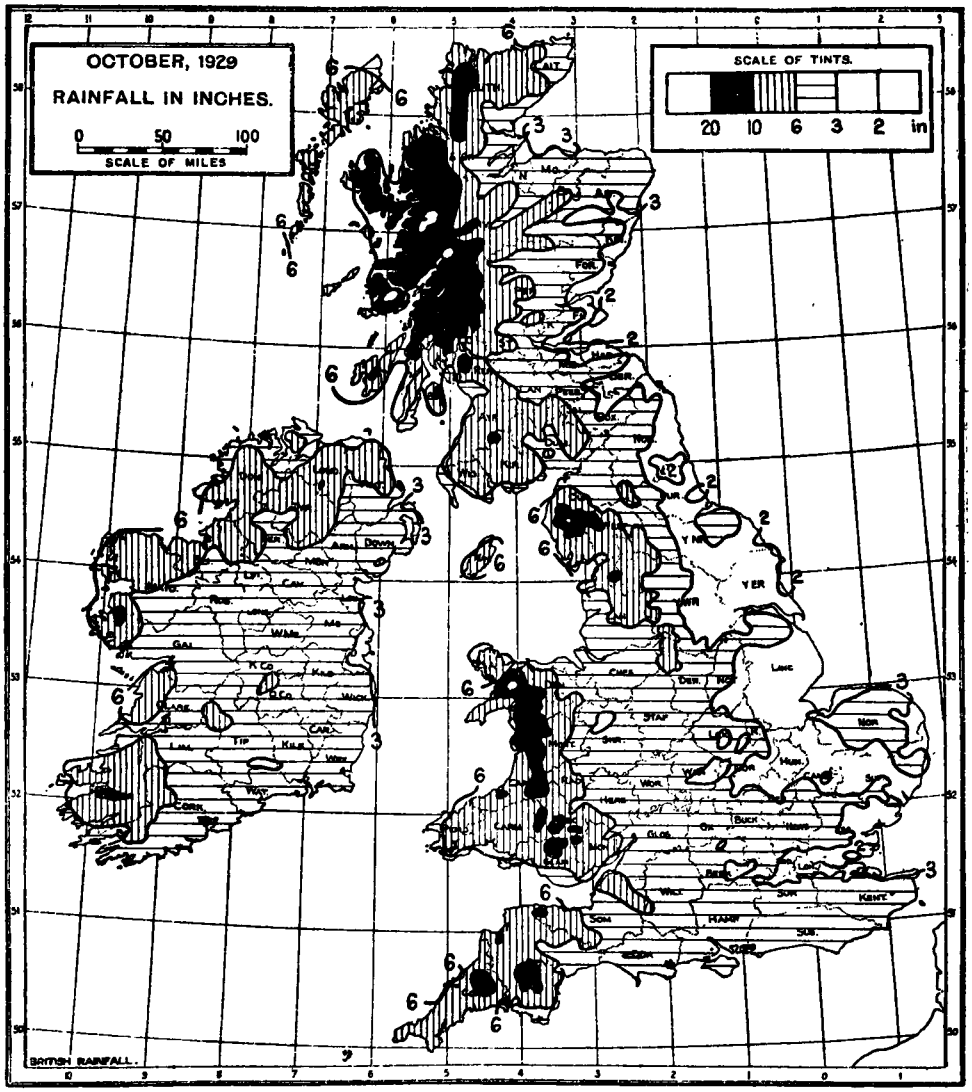
The map of the rainfall in actual inches is of particular interest because of the large areas with less than half-an-inch. Less than



Rainfall, September, 1929, as per cent. of average.

0·25 inch was recorded over two large areas on either side of London, the first stretching from Oxford to Cambridge and the second from Aldershot to Gravesend. About 0·2 inch was also recorded near Salisbury and Gloucester and over large areas between North Berwick and Edinburgh and on the other side of the Lammermuir Hills near Melrose. On the other hand falls of more than 10 inches were confined to the Isle of Mull and the neighbourhood of Loch Quoich in Inverness-shire.

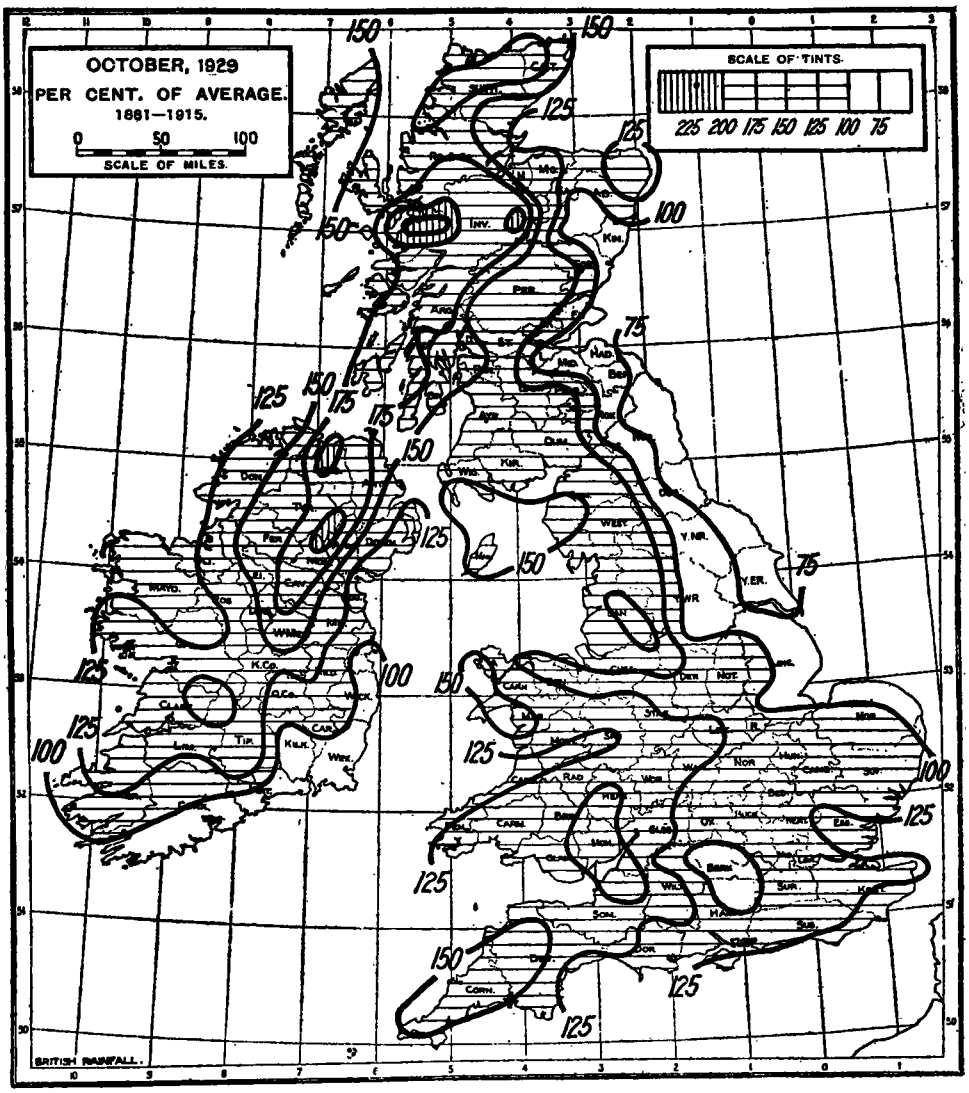
October.—In striking contrast with the first nine months of the year October, 1929, was unsettled and windy with frequent rain. The heavy falls on rainfall days were not remarkable apart from the 5th in the south-west of England and Wales. The rainfall of that day was both unusually heavy and wide-spread (*see* Section 7). The mean temperature for the month was within 1°F. of the average at most stations and sunshine totals exceeded the average generally except in the north of Scotland.



Rainfall, October, 1929.

Weather of the cyclonic type prevailed during the greater part of the month and in all districts monthly means of pressure were appreciably below the average, the deficiency amounting to 11 mb. at Lerwick and to 1 mb. at St. Mary's, Scilly. The isobars of monthly mean pressure trended roughly from west to east and winds were mainly from between south-west and north-west.

The total rainfall for the month exceeded the average everywhere except along the south-east coast of Ireland, and over a broad strip along the east coast of Great Britain. At Newcastle-on-Tyne there was only 54 per cent. of the average. The areas with more than 150 per cent. in the Devon-Cornwall peninsula and in South Wales received heavy rainfall on the 5th. The total rainfall of the month was more striking, however, over a broad belt stretching from Central Ireland to Inverness, where percentage falls of over 175 were widespread and of

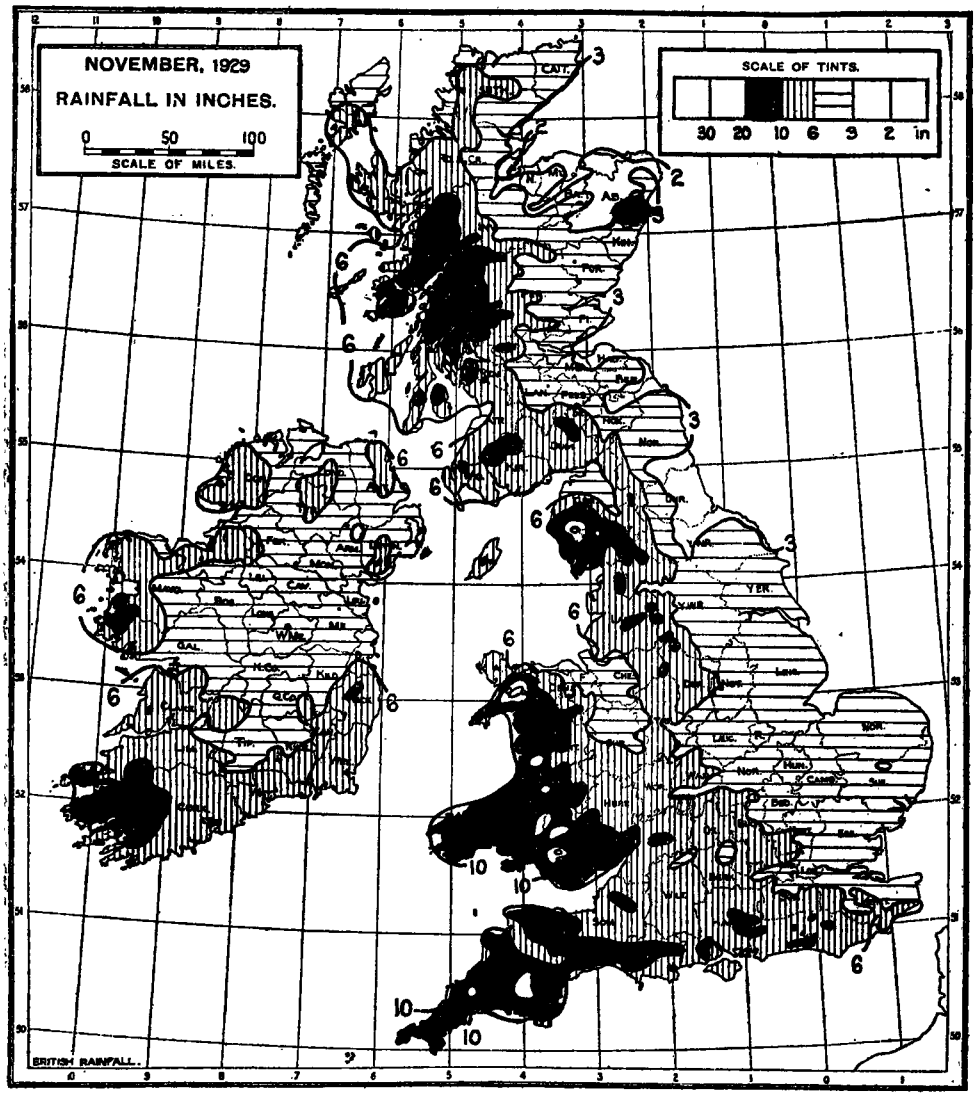


Rainfall, October, 1929, as per cent. of average.

over 200 occurred locally. At Glenquoich the total for the month was 23·84 inches or 239 per cent. of the average. More than twice the average was also recorded at Drenagh in Co. Londonderry, at Armagh and at Alvie in Inverness shire.

The map of the rainfall in actual inches shows that more than 20 inches fell during the month in Snowdonia, in Mull, near Loch Quoich in Inverness-shire, and on Ben Nevis.

November.—The outstanding feature of the weather of the month was the pronounced excess of precipitation in the south-west of England and Wales, where many stations recorded the wettest November, and a few, the wettest month of any name for 60 years. Heavy falls of rain occurred on many days during the month, those on November 11th, 18th, 19th and 24th being particularly noteworthy (*see* Section 7).



Rainfall, November, 1929.

Associated with the frequent passage of depressions across or in the neighbourhood of the British Isles, accompanied by an unusual series of vigorous secondaries which crossed the south of England and Wales, monthly mean pressures were well below the average everywhere. The deficiency of pressure was most marked in the north of Ireland and west of Scotland, being as much as 20 mb. at Malin Head in Donegal.

The total rainfall for the month was less than the average over much of the north of Scotland and near Newcastle-on-Tyne. At Grantown-on-Spey there was just less than half the average for the month. Falls of more than twice the average occurred over practically the whole of the south-western half of England and Wales as well as in the English Lake District and in Co. Wexford. Three times the average was recorded over large areas stretching from South Wales to Birmingham and from Plymouth to Lyme Regis.

Rainfall, November, 1929, as per cent. of average.

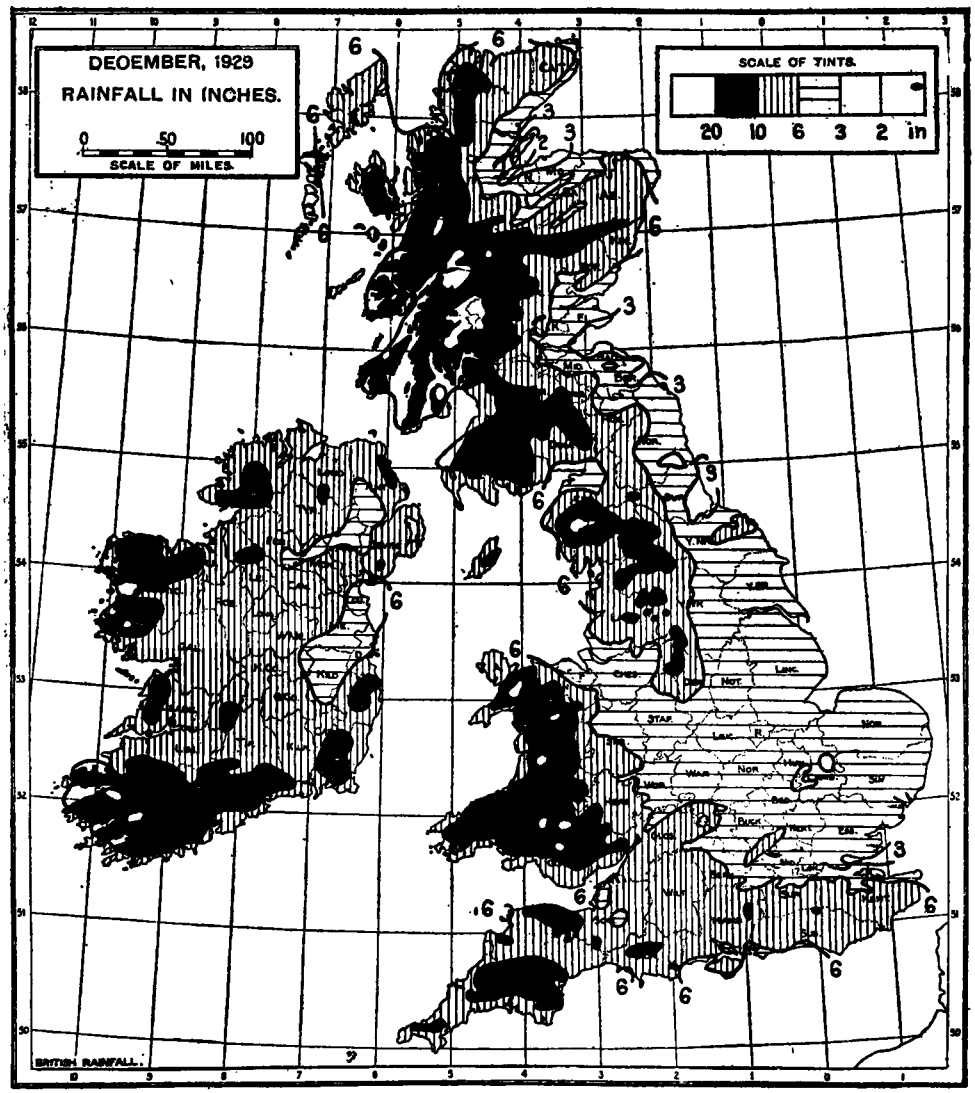
The map of the rainfall in actual inches shows unusually large areas with more than 10 inches in the south-west of England and of more than 20 inches on Dartmoor, in South Wales, Snowdonia and the English Lake District.

The general percentage values were England and Wales 188, Scotland 163, Ireland 183 and British Isles 180.

Further details of the rainfall of this month are given in the special article in Part IV.

December was mild and abnormally wet and stormy. In spite of the very unsettled conditions and heavy rainfall, sunshine aggregates exceeded the average in most districts.

In consequence of the frequent passage of depressions and associated depressions across the British Isles during the month, monthly mean pressures were below the average everywhere, the deficiency varying from 15 mb. at Stornoway to 7 mb. at Scilly. The prevailing winds



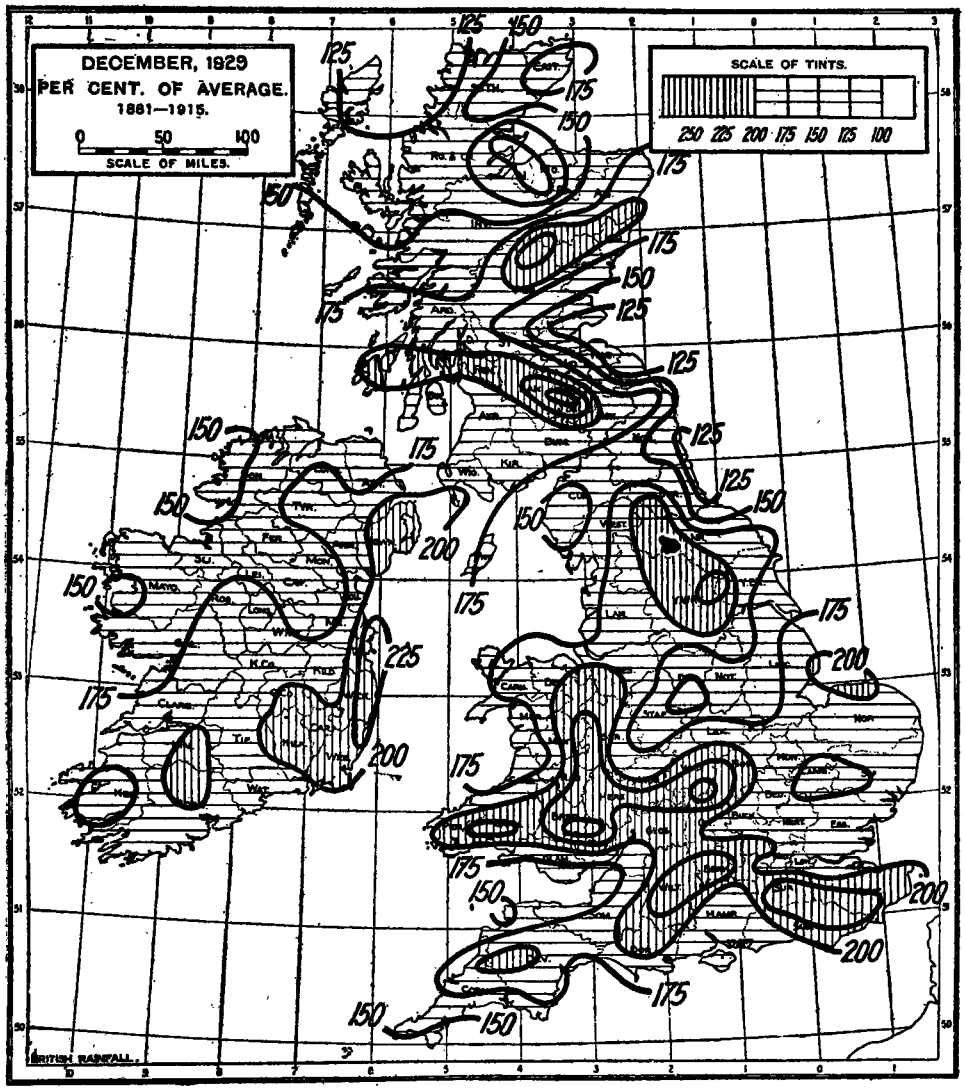
Rainfall, December, 1929.

were from a south-westerly or westerly point and were frequently strong, unusually stormy conditions prevailing during the period 5th to 12th and from the 20th to 29th.

The total rainfall for the month was above the average everywhere, except in the neighbourhood of the Moray Firth. At Nairn the rainfall was only 91 per cent. of the average. Over practically the whole of England and Wales, Ireland and the southern half of Scotland the rainfall exceeded 150 per cent. Twice the average was recorded over

large areas in England and Wales, along the east of Ireland, over a broad strip from the Isle of Mull to Roxburghshire, as well as in part of Perthshire. Some of the largest percentage values were 278 at Stobo Castle, Peebleshire; 278 at Abergavenny, Monmouthshire; and 255 at Farnborough, Warwick.

A striking feature of the map showing the rainfall of the month in actual inches is that the rainfall in Ireland exceeded 6 inches everywhere except over large areas from Lough Neagh to Kildare. More than



Rainfall, December, 1929, as per cent. of average.

20 inches was recorded in parts of South and Central Wales, in Snowdonia, the English Lake District, over much of the Western Highlands of Scotland and in the mountains of Kerry and Connemara.

The general percentage values were England and Wales 188, Scotland 163, Ireland 183 and the British Isles 180. The striking contrast of the rainfall of October to December, compared with that of January to September, 1929, is dealt with in a special article in Part IV.

Table XXIII.—*Monthly Rainfall at* 400 *Stations in the British Isles during* 1929.

ENGLAND

County and River Division.		Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
			in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
London	2	St. Pancras (Camden Square) ...	·96	·58	·01	1·33	1·39	1·29	2·20	2·13	·28	2·72	5·47	4·19	22·55
Surrey	6	Haslemere (U.D.C. Depot)	1·76	·90	·20	·70	3·47	2·04	2·14	2·12	·25	5·06	9·89	9·59	38·12
,,	6	Woking (The Green).....	1·26	·49	·01	·88	2·15	1·58	1·31	2·25	·23	2·92	5·69	5·61	24·38
Kent	1	Tenterden (Ashenden)	1·38	1·00	·04	·99	1·58	1·09	1·41	1·93	1·21	3·28	6·37	7·70	27·98
,,	1	Folkestone (Cherry Gdns.)	1·22	·81	·20	1·15	1·48	1·76	1·42	2·30	1·24	3·59	6·01	6·32	27·50
,,	2	St. Peters (Hildersham House) ..	1·37	·89	·32	·92	1·03	1·25	·73	1·98	·40	3·70	4·10	4·90	21·59
,,	3	Teynham (New Gardens).....	·84	·28	·08	1·09	·74	1·10	1·15	1·49	·31	2·97	4·50	5·29	19·84
,,	4	Rochester (Knight's Place)	·91	·66	·10	1·45	1·12	1·11	1·12	2·27	·15	3·06	5·95	5·23	23·13
,,	5	Westerham (Town)	1·37	·56	·03	1·17	2·22	1·37	2·58	2·56	·26	3·68	8·26	7·38	31·44
Sussex	1	Selsey (Large Acres)	1·30	1·08	·11	·87	2·53	1·69	1·46	2·93	·76	4·65	6·32	5·90	29·60
,,	3	Worthing (Victoria Park)	1·46	1·30	·09	·49	1·68	2·35	1·64	2·79	1·19	3·78	7·20	5·74	29·71
,,	4	Balcombe (The Gables)	1·77	1·01	·05	·97	3·23	1·85	3·05	3·39	1·36	4·97	9·50	8·60	39·75
,,	5	Eastbourne (Wilmington Sq.) ...	1·20	1·00	·03	·94	2·00	2·30	1·16	1·91	·86	4·88	7·64	8·00	31·92
,,	5	St. Leonards (Gensing Gdns.)....	1·39	1·15	·12	1·28	2·36	2·07	1·27	2·28	1·04	4·77	6·18	7·68	31·59
,,	7	Crowborough (Uckfield Lodge) ..	1·58	·89	·09	1·12	2·85	1·72	1·81	3·64	·80	4·94	11·32	7·74	38·50
Hampshire	1	Totland Bay (Aston House)	1·57	1·22	·13	·94	2·53	1·39	1·15	1·75	·76	4·72	8·12	6·33	30·61
,,	4	Stockbridge (Houghton Lodge)..	1·48	·86	·06	·86	1·45	1·42	1·47	·96	·30	4·55	9·04	7·49	29·94
,,	5	Bishops Waltham (Park Ho.)....	1·51	1·16	·17	·69	1·95	1·50	1·18	1·78	·24	4·67	8·74	7·07	30·66
,,	8	Sherborne St. John	1·33	·67	·07	·96	1·46	1·30	1·19	·83	·37	3·45	7·22	6·43	25·28
Berkshire	4	Bucklebury Place	1·31	·68	·14	1·04	1·29	1·54	1·03	·73	·53	2·12	6·05	5·97	22·43
,,	5	Upton (Manor House)	·88	·57	·11	1·07	1·29	·79	1·16	·75	·24	3·26	6·34	5·46	21·92
Hertfordshire ..	2	St. Albans (County Museum)	1·52	·67	·12	1·19	2·73	1·13	1·99	·64	·31	3·45	6·89	6·19	26·83
,, ..	3	Royston (Therfield Rectory)	1·54	·64	·08	1·67	2·00	·87	2·94	·64	·24	3·36	5·16	4·04	23·18
Buckinghamshire	3	Slough (Upton)	·99	·52	·03	·82	2·59	·86	1·15	1·11	·35	3·24	5·73	4·74	22·13
,,	3	Hampden House	1·53	·94	·10	1·23	1·89	1·07	1·89	·90	·26	4·14	7·52	6·95	28·42
,,	5	Wolverton (St. George's Vic.) ...	1·10	·65	·07	1·45	1·36	·57	1·28	·53	·14	3·28	5·75	4·64	20·82
Oxfordshire	2	Wootton Rectory	1·46	·68	·11	1·66	2·06	1·21	1·76	1·57	·41	3·59	6·66	5·91	27·08
Northamptonshire	1	Naseby Reservoir	1·41	·44	·12	1·80	1·38	1·13	1·94	1·23	1·23	2·74	5·17	4·08	22·67
,,	4	Wellingborough (Swanspool)	1·30	·89	·04	1·62	·97	·83	2·18	·78	·37	2·87	5·00	4·20	21·05
Huntingdonshire	1	St. Ives (Slepe House)	1·45	·64	·05	1·14	1·04	1·10	1·46	·44	·26	2·95	3·84	2·90	17·27
Bedfordshire ...	3	Shefford Council School	1·14	·57	·08	1·41	1·21	·58	·81	·49	·11	2·77	5·20	3·43	17·80
Cambridgeshire	2	Littleport (Highfield House)	1·39	·37	·07	·74	1·63	·72	1·47	·53	·16	2·78	3·94	3·11	16·91

Table XXIII.—(*con.*) *Monthly Rainfall*—**ENGLAND**—(*con.*).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Cambridgeshire 3	Parson Drove (Clows Cross)	1·49	·74	·19	·86	1·28	1·27	1·60	·73	·45	2·80	3·29	3·15	17·85
Essex..... 2	Leigh (Brick House)	1·10	·47	·01	1·04	·79	·81	1·55	1·52	·74	2·21	4·17	2·89	17·30
,, ... 2	Ongar (Marden Ash)	1·12	·52	·02	1·06	1·54	·80	1·66	1·62	·19	3·32	4·83	4·25	20·93
,, ... 3	Bradwell-on-Sea (Bradwell Hall)	1·45	·38	·01	1·30	1·34	·54	2·19	1·24	1·69	2·46	5·06	3·78	21·44
,, ... 4	Gt. Bardfield (South Lodge)	1·78	·49	·13	1·67	1·38	·49	1·73	1·52	·76	3·18	4·29	4·71	22·13
Suffolk 1	Hawkedon Rectory	1·85	·55	·03	1·70	1·29	1·18	1·87	1·32	·98	2·89	4·01	4·22	21·89
,, ... 2	Ipswich (Copdock)	1·78	·42	·04	1·70	1·55	·87	3·30	1·09	1·37	2·84	4·00	4·24	23·20
,, ... 3	Orford (The Gables)	1·22	·51	·08	1·69	·97	·89	3·02	1·38	·35	2·88	3·86	4·11	20·96
,, ... 3	Halesworth Rectory	1·66	·64	·07	1·30	1·07	·68	3·82	1·37	·71	3·01	3·88	4·79	23·00
,, ... 4	Yarmouth (Burgh Hall)	1·46	·64	·07	1·12	·95	·47	3·40	1·17	·32	2·79	3·29	4·18	19·86
,, ... 5	Bury St. Edmunds (Westley Ho.)	1·59	·46	·05	1·34	1·52	·80	1·83	1·38	·95	3·08	3·90	4·42	21·32
Norfolk 1	Diss (The Cedars)	1·75	·46	·03	1·01	·83	·58	2·53	1·10	·63	2·72	2·82	3·80	18·26
,, ... 1	Wymondham	1·92	·55	·04	·87	1·03	·75	2·94	1·06	·84	3·29	3·46	4·88	21·63
,, ... 2	Aylsham (Rippon Hall)	2·00	·85	·08	1·05	1·41	1·13	3·33	1·37	·77	2·99	3·79	4·62	23·39
,, ... 3	Sandringham House Gardens	2·24	·61	·29	·99	1·43	1·93	3·54	·90	·94	3·00	4·31	4·53	24·71
,, ... 3	Walsingham	2·30	·79	·20	1·04	1·30	1·24	4·46	1·44	1·05	3·12	4·33	5·17	26·44
,, ... 4	Thetford (Waterworks).....	2·00	·42	·10	1·00	1·37	·99	2·32	1·24	1·04	3·03	3·91	4·11	21·53
,, ... 4	Little Dunham (Dunham Cot.) ..	2·55	·81	·27	·99	1·73	1·23	3·08	1·25	·43	3·43	4·71	4·83	25·31
Wiltshire..... 1	Bradford (Manvers House)	1·30	1·04	·14	·70	1·44	1·25	1·80	2·14	·29	4·51	6·96	6·52	28·09
,, ... 2	Mere (Charnage)	1·70	1·16	·25	1·04	2·17	1·53	1·50	2·19	·66	5·25	8·66	7·23	33·34
,, ... 3	Larkhill (School of Artillery)	1·43	·65	·12	·73	1·61	1·36	1·31	1·32	·42	3·50	7·96	7·18	27·59
,, ... 5	Marlborough College.....	1·55	·78	·32	1·04	2·20	1·74	1·91	1·69	·63	4·70	8·39	7·52	32·47
Dorsetshire 3	Weymouth (Springfield).....	1·48	1·81	·15	·74	2·23	1·84	1·27	1·55	·65	4·07	7·20	6·06	29·05
,, ... 3	Beaminster (Hamilton Lodge) ...	1·78	1·85	·38	1·09	2·72	2·00	1·77	2·56	·42	5·82	13·39	8·67	42·45
,, ... 4	Winterbourne (Whitchurch Vic.)..	1·65	1·89	·37	·93	2·46	1·69	1·64	1·48	·32	3·98	9·53	7·33	33·27
,, ... 4	Wimborne (Codford House)	1·61	1·28	·15	·72	2·41	1·54	1·24	1·70	·63	4·35	9·68	7·66	32·97
South Devonshire 3	South Brent (Great Aish)	5·35	4·03	1·01	·81	5·44	4·03	3·62	5·07	·50	9·59	20·01	14·96	74·42
,, ,, 5	Teignmouth (Den Gardens)	2·33	3·00	·17	1·06	2·59	2·21	1·37	1·82	·27	5·56	11·57	8·81	40·76
,, ,, 6	Crediton (Okefield)	1·46	2·32	·22	·88	1·93	2·52	1·47	2·27	·55	4·98	7·75	7·23	33·58
,, ,, 7	Ottery St. Mary (West Hill)	2·08	2·53	·20	·72	2·17	2·37	1·36	2·40	·42	5·56	11·51	8·39	39·71
North Devonshire 1	Woolacombe (Hotel Grounds)....	1·51	1·39	·54	·80	2·93	1·82	2·33	1·98	·48	3·74	6·93	4·91	29·36
,, ,, 3	Okehampton (Uplands)	2·23	2·25	·44	·89	4·12	3·05	2·36	3·71	1·79	9·43	14·91	14·67	59·85

Table XXIII.—(*con.*) *Monthly Rainfall*—**ENGLAND**—(*con.*).

County and River Division.		Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
			in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
North Devonshire	3	Dolton (Hilliers)	1·45	1·44	·58	·95	2·99	2·27	2·25	4·03	1·11	6·63	9·12	7·93	40·75
Cornwall	1	Redruth (Trewirgie)	4·21	3·33	·72	1·33	5·46	3·05	1·85	3·28	·76	8·65	14·09	10·43	57·16
,,	1	Newquay (Mount Wise)	1·89	2·21	·41	1·02	3·29	2·74	1·70	2·89	·68	6·22	9·18	6·74	38·97
,,	1	Morwenstow (Tonacombe Manor)	2·05	1·67	·56	1·06	3·84	1·64	2·58	2·84	·09	6·57	10·28	6·60	39·78
,,	2	Penzance (Morrab Gardens)	3·13	3·34	·54	1·38	4·85	3·31	1·81	2·94	·48	7·16	12·33	8·65	49·92
,,	2	St. Austell (Trevarna)	4·35	4·30	·45	1·48	4·25	3·33	2·11	3·09	·50	8·70	13·09	9·37	55·02
,,	2	Liskeard (Penmilder)	3·57	2·56	·54	·76	3·73	3·10	2·39	3·74	·49	11·52	14·29	10·12	56·81
,,	2	Bolventor Vicarage	4·27	2·93	1·02	1·33	5·92	4·32	3·76	7·69	1·02	12·49	20·24	14·92	79·91
,,	3	Devonport (Cremyll)	2·89	2·30	·74	·90	3·62	2·83	2·56	3·58	·52	6·07	12·48	7·27	45·76
,,	4	Tresco Abbey	2·41	4·03	·38	1·31	5·39	1·88	·76	1·62	·67	6·08	7·63	8·34	40·50
Somersetshire	1	Long Ashton (Research Stn.)	1·15	1·41	·55	·90	2·48	2·22	1·84	3·88	·74	6·76	9·92	8·08	39·93
,,	2	Street (Millfield)	1·36	·99	·20	·72	1·78	1·91	1·24	2·99	·35	4·70	7·31	5·72	29·27
,,	2	Burnham (Chalbury)	1·29	1·50	·12	·52	2·12	2·59	1·45	3·87	·32	6·11	6·90	5·85	32·64
,,	3	Taunton (The Park)	1·09	·90	·22	1·05	2·35	1·93	1·77	2·26	·51	5·21	8·36	7·98	33·63
,,	5	Brushford Rectory	1·63	2·01	·35	·86	3·21	3·33	2·39	3·88	1·06	8·49	12·49	11·47	51·17
Gloucestershire	3	Avening House	·51	1·30	·36	1·10	2·03	1·29	1·29	2·61	·24	4·61	8·33	7·38	31·05
,,	3	Cheltenham (Montpellier Gdns.)	·92	·38	·06	·83	1·57	1·29	1·84	1·30	·35	4·03	7·67	6·92	27·16
,,	4	Mickleton (Bank House)	1·07	·57	·02	1·04	1·45	1·41	1·65	1·38	·93	3·61	6·86	5·36	25·35
,,	7	Lechlade (Claydon House)	1·00	·66	·14	1·02	1·73	1·18	1·02	2·07	·57	3·52	5·58	5·23	23·72
Herefordshire	1	Ross (Birchlea)	·93	1·21	·17	·88	2·14	1·40	1·87	1·36	·35	4·83	8·55	6·52	30·21
,,	1	Weobley School	1·21	·96	·19	·52	2·57	3·04	1·76	·98	1·37	4·73	7·57	6·98	31·88
Shropshire	3	Bromfield (Warwick House)	1·52	·65	·16	·74	2·94	2·82	1·72	1·34	1·04	4·85	6·72	6·87	31·37
,,	3	Lydbury North (Totterton)	1·07	·76	·27	·76	2·18	2·31	2·31	1·75	1·55	3·59	5·65	6·09	28·29
,,	3	Much Wenlock (Willey Park)	1·87	·96	·20	1·28	2·49	2·89	2·96	1·56	·96	3·86	5·76	4·88	29·67
Staffordshire	2	Kingswinford (Ashwood P.S.)	1·28	·54	·14	·65	1·89	1·97	1·85	1·79	·90	3·99	6·55	5·12	26·67
,,	2	Market Drayton (Old Springs)	1·39	·68	·55	·72	2·00	1·89	1·90	2·80	1·46	4·54	5·92	5·08	28·93
,,	3	Lichfield (St. John Street)	1·49	·42	·27	·62	1·72	1·34	1·51	2·38	·57	3·26	5·59	4·69	23·86
,,	3	Stafford (Corporation Depot)	1·70	·47	·51	·76	2·14	1·50	1·80	1·96	·78	3·68	6·29	4·64	26·23
,,	5	Ashbourne (Mayfield House)	2·06	·65	·37	·98	2·02	1·37	2·48	3·91	·92	4·14	7·79	5·99	32·68
Worcestershire	1	Malvern (Free Library)	1·42	·73	·09	·91	1·92	1·69	2·08	1·46	·70	4·45	8·67	6·70	30·82
,,	2	Bewdley (C.E. School)	1·52	·63	·07	·40	1·62	1·83	1·22	1·68	1·00	4·58	6·62	5·90	27·07
,,	3	Redditch (Hewell Gardens)	1·48	·62	·32	·66	1·96	1·90	1·79	2·36	1·35	4·07	8·09	5·23	29·83

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County and River Division.		Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
			in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Warwickshire ..	1	Coventry (Keresley Grange)	1·43	·49	·19	1·07	2·32	1·75	1·51	2·01	1·23	3·46	6·27	5·94	27·67
,, ..	3	Farnborough	1·75	·55	·08	1·59	1·88	1·85	2·13	2·04	·75	3·14	7·45	7·50	30·71
Leicestershire ..	4	Loughborough (Nan Pantan Res.)	1·53	·53	·13	1·27	2·43	1·34	1·75	1·78	·54	3·65	5·25	5·12	25·32
,, ..	4	Belvoir Castle Gardens.....	1·27	·50	·07	1·09	1·20	1·57	1·41	1·63	·66	2·70	4·46	4·02	20·58
Rutlandshire ..	1	Uppingham (Ridlington)	1·40	·57	·08	1·26	1·68	1·20	1·90	1·80	1·39	3·15	5·16	4·47	24·06
Lincolnshire ...	2	Market Deeping (Wilsthorpe)	1·14	·46	·08	·83	1·01	1·16	1·88	1·05	·71	2·24	3·47	3·04	17·07
,, ...	3	Boston (Black Sluice, Skirbeck) .	1·96	·56	·28	·61	1·15	1·59	1·74	·86	·57	2·70	4·06	4·00	20·08
,, ...	3	Sleaford (Kesteven Mental Hos.)	1·33	·60	·25	1·03	1·34	1·50	1·59	1·27	·36	2·21	4·18	4·02	19·68
,, ...	3	Hackthorn Hall.....	1·69	1·06	·26	·74	·78	1·24	1·23	2·01	·57	2·83	4·45	3·88	20·74
,, ...	4	Skegness (Marine Gardens)	1·92	·61	·16	·41	·89	·70	1·66	·80	·35	2·29	3·32	4·54	17·65
,, ...	4	Louth (Westgate)	1·63	·84	·31	·65	1·19	1·20	1·42	1·14	·51	2·73	4·03	5·12	20·77
,, ...	5	Brigg (Wrawby Road)	1·84	·53	·16	·65	1·08	·74	1·37	2·44	1·21	3·56	4·24	4·26	22·08
Nottingham ...	2	Newark	1·34	·62	·28	1·34	1·16	1·34	1·28	2·11	·58	2·36	4·18	3·80	20·39
,, ...	5	Mansfield (West Bank).....	1·75	·85	·14	1·52	1·54	1·51	1·96	2·15	·57	3·95	5·95	5·07	26·96
Derbyshire	5	Littleover (The Knoll)	1·32	·39	·25	·86	1·96	1·48	2·10	2·48	·51	3·51	5·41	4·04	24·31
,, ...	6	Matlock Bath (Lower Tower)	1·81	·81	·21	1·36	2·55	1·60	2·44	2·56	1·29	4·31	8·18	7·29	34·41
,, ...	6	Buxton (Devonshire Hospital) ..	2·22	·85	·87	1·53	3·12	1·95	4·00	4·81	2·23	6·59	9·20	9·69	47·06
Cheshire	1	Altrincham (Burlington Cot.) ...	1·78	1·02	·82	·80	2·19	1·30	2·98	4·71	2·02	5·05	6·84	6·00	35·51
,, ...	2	Northwich (Winnington)	2·04	1·00	·64	·76	1·94	1·64	2·05	3·37	2·02	5·22	5·46	4·99	31·13
,, ...	4	Eccleston	1·36	·88	·25	1·07	1·92	1·97	3·43	3·01	1·80	3·95	4·64	4·39	28·67
,, ...	4	Neston (Vine House)	1·31	·81	·09	1·06	1·32	1·31	2·85	2·98	1·47	3·56	4·89	3·99	25·64
South Lancashire	3	Bolton (Queen's Park).....	2·61	1·39	1·69	1·31	3·00	1·93	3·40	6·53	2·35	7·20	8·85	7·29	47·55
Central ,,	1	Burnley (Swinden)	2·68	1·04	1·24	1·44	3·17	1·77	2·78	4·02	1·75	6·40	8·92	11·13	46·34
,, ,,	3	Southport (Hesketh Park)	1·40	·93	·84	·88	1·96	1·22	2·54	4·03	1·90	4·52	6·22	5·62	32·06
North ,,	1	Ulverston (Poaka Beck)	2·90	1·29	·82	2·46	3·09	3·14	5·28	7·76	2·63	7·52	11·98	8·72	57·59
,, ,,	4	Lancaster (Greg Obsy.)	2·06	1·02	1·16	1·65	2·43	2·30	4·12	6·99	3·05	6·71	8·46	7·45	47·40
,, ,,	5	Barton (Newsham House)	1·87	·90	1·02	1·06	2·31	1·13	3·64	5·58	1·91	6·63	7·21	7·01	40·27
Yorkshire, W.R.	2	Settle (Gas Works)	2·20	1·11	·64	1·25	2·34	1·43	4·26	4·46	1·86	7·02	8·13	10·42	45·12
,, ,,	7	Sheffield (Weston Park)	1·59	·67	·13	1·02	2·05	1·50	1·00	1·88	1·47	3·38	6·03	7·33	28·05
,, ,,	7	Doncaster (Avenue Road)	2·09	·73	·06	·72	1·16	1·05	1·62	1·90	1·06	2·90	4·49	4·49	22·27
,, ,,	8	Meltham (Harewood Lodge)	1·63	·43	·99	1·69	3·73	1·32	2·66	3·88	1·52	5·21	9·65	11·18	43·89
,, ,,	9	Leeds (Wortley Reservoir)	1·87	·47	·30	1·15	1·36	·87	2·90	1·95	·70	3·10	4·62	5·58	24·87
,, ,,	10	Ilkley (Spence's Garden)	2·36	·96	·22	1·31	2·31	1·05	2·59	2·89	·70	4·25	5·90	9·68	34·22

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County and River Division.		Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
			in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Yorkshire, W.R.	10	York (Cherry Hill)	2·15	·51	·17	·60	·62	1·28	1·96	2·34	·56	2·43	3·56	5·16	21·34
,, ,,	10	Buckden	2·46	·92	·88	2·17	3·34	2·34	4·09	6·48	2·39	7·10	8·44	12·72	53·33
,, ,,	11	Knaresborough (The Abbey)	1·91	·88	·51	·97	1·42	1·72	2·73	2·21	·51	2·73	3·53	5·47	24·59
,, E.R.	2	Birdsall Gardens	2·36	1·20	·28	1·32	1·54	1·38	1·74	2·58	·58	2·79	4·27	7·11	27·15
,, ,,	3	Patrington (Rose Cottage)	2·08	·51	·04	·96	·89	·75	1·72	2·30	1·02	2·41	3·94	3·96	20·58
,, ,,	3	Holme-on-Spalding Moor	2·08	·67	·15	·91	1·36	·81	1·86	2·37	·51	2·56	4·19	4·60	22·07
,, ,,	3	Beverley (E. Riding Mental Hosp.)	1·71	·81	·15	1·25	1·48	1·25	1·49	1·71	·59	2·53	4·22	5·68	22·87
,, ,,	4	Bridlington (Corpn. Nurseries)	2·45	1·13	·12	1·24	1·14	1·57	1·22	2·29	·30	2·08	3·52	4·65	21·71
,, N.R.	1	Masham Moor (Roundhill Res.)	1·87	1·31	·25	1·66	2·58	1·37	2·88	3·12	1·18	4·27	5·44	9·06	34·99
,, ,,	2	Felixkirk (Mount St. John)	2·94	1·11	·23	1·30	1·66	1·86	2·14	2·92	·77	2·73	3·38	4·51	25·55
,, ,,	2	Reeth (Arkengarthdale)	1·66	·83	·21	1·09	1·57	·93	3·28	4·10	1·06	4·50	5·49	10·70	35·42
,, ,,	4	Thornton Dale (High Dalby Ho.)	3·10	1·52	·25	1·43	1·56	1·43	2·17	2·88	·27	2·31	3·32	4·28	24·52
,, ,,	5	Whitby (Mulgrave Castle)	2·14	·97	·21	1·04	1·28	1·91	2·80	3·39	·47	2·55	2·99	6·14	25·89
,, ,,	6	Middlesbrough (Albert Park)	2·41	·55	·11	·99	1·16	2·14	2·08	2·53	1·13	2·22	2·48	2·51	20·31
Durham	2	Burnhope (Lodgegill Mine)	2·00	1·35	·65	2·05	1·55	2·90	6·10	6·25	2·50	7·75	11·05	11·60	55·75
,,	2	Durham (Houghall)	1·76	1·10	·13	1·06	·98	1·51	2·34	2·23	1·34	2·04	2·59	3·63	20·71
,,	2	Weardale W.W. (Waskerley)	1·49	1·00	·21	1·43	1·36	1·91	3·05	3·15	1·40	2·70	3·47	4·31	25·48
,,	2	Sunderland (W. Hendon Ho.)	2·96	·81	·16	1·36	1·07	1·78	2·51	2·66	1·06	2·55	2·91	3·22	23·05
Northumberland	3	Corbridge (Howden Dene)	1·79	1·19	·07	1·85	1·00	1·31	3·28	3·08	1·16	1·91	2·38	3·63	22·65
,,	4	Bellingham (High Green Manor)	1·79	1·32	·26	1·68	1·60	3·06	4·38	3·76	·83	3·73	3·65	5·71	31·77
,,	5	Morpeth (Cockle Park)	2·07	1·06	·30	1·53	1·45	1·53	3·00	3·04	·94	2·36	4·07	3·63	24·98
,,	5	Fontburn Res. (Tynemouth W.W.)	2·03	1·16	·29	2·18	2·36	1·94	3·99	3·09	1·18	3·09	3·30	4·30	28·91
,,	6	Wooperton	2·30	1·92	·03	1·61	1·18	1·67	3·57	4·81	·52	3·12	3·83	5·15	29·71
,,	6	Ilderton (Lilburn Tower Gdns.)	2·08	1·96	·19	1·19	1·04	1·70	4·44	4·22	·46	2·78	3·75	4·64	28·45
Cumberland	1	Penrith (Laurel Bank)	1·05	·55	·15	1·09	1·52	1·48	3·92	4·00	1·76	4·65	5·62	7·92	33·71
,,	1	Geltsdale	1·38	·60	·60	1·99	1·59	2·20	3·83	4·72	1·56	5·69	5·25	6·64	36·05
,,	1	Carlisle (Scaleby Hall)	1·05	·68	·61	1·31	1·29	2·52	4·65	5·92	1·26	4·50	4·77	5·28	33·84
,,	2	Borrowdale (Seathwaite)	3·71	3·89	2·15	5·90	8·50	5·77	13·87	16·18	4·68	18·25	29·60	24·02	136·52
,,	2	Keswick (Derwent Island)	1·32	·92	·82	1·89	3·75	1·86	5·71	6·07	2·02	8·12	12·76	11·84	57·08
,,	3	St. Bees (Bickerley House)	2·24	1·49	1·05	1·64	2·72	2·11	4·89	6·14	1·43	6·57	8·32	7·21	45·81
Westmorland	1	Kirkby Stephen (Eden Place)	1·03	·58	·32	1·30	1·85	2·21	3·60	4·01	2·21	5·13	7·90	10·78	40·92
,,	1	Appleby (Castle Bank)	1·10	·71	·26	1·69	1·88	1·96	4·27	3·82	2·11	5·07	6·71	6·97	36·55
,,	3	Kendal (Highgate)	2·02	1·60	1·28	2·29	2·50	2·79	5·33	8·00	2·69	6·90	9·62	7·65	52·67

Table XXIII.—(*con.*) *Monthly Rainfall*—MONMOUTH AND WALES, AND THE ISLANDS.

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Monmouth 3	Newport W.W. (Nantypridd)	1·52	1·33	·79	1·19	3·81	2·51	2·10	3·89	·69	6·66	13·83	9·72	48·04
,, ... 3	Abergavenny (The Chain)	2·06	1·54	·23	1·16	3·25	2·79	2·84	1·28	·95	7·15	13·37	13·68	50·30
Glamorgan 3	Swansea (Victoria Park)	3·23	1·64	1·82	1·24	3·62	2·52	4·35	4·21	1·11	8·14	14·72	9·87	56·47
,, ... 5	Bridgend (Eiw Graig).....	2·31	1·50	1·31	·68	2·99	2·71	3·26	4·25	·99	6·83	10·56	6·94	44·33
,, ... 6	Treherbert (Tyn-y-waun).....	3·88	2·91	1·97	1·00	7·55	5·82	6·08	7·41	3·02	13·72	27·11	24·05	104·52
,, ... 7	Cardiff (Roath Park)	1·68	1·58	·54	·50	3·45	2·58	2·29	3·45	·50	6·55	10·86	9·28	43·26
Carmarthen 2	Carmarthen (The Friary)	2·63	1·49	2·03	1·03	4·41	2·45	3·11	3·19	1·14	8·04	13·93	12·98	56·43
,, ... 2	Llanwrda (Dolaucothy).....	1·77	1·73	1·28	1·47	4·30	3·31	4·16	4·46	1·53	9·01	15·68	14·38	63·08
Pembroke 4	Saundersfoot (Hean Castle)	2·12	1·50	·85	1·01	3·43	1·55	2·18	2·04	1·32	6·93	10·94	8·12	41·99
,, ... 4	Haverfordwest (Grammar School)	3·61	2·74	1·55	·93	4·95	1·95	3·37	3·09	1·32	6·96	13·50	12 53	56·50
,, ... 4	Fishguard (Langton, Dwrbach) ..	2·26	1·82	·99	·88	3·84	1·87	2·48	4·16	1·47	5·57	11·41	9·63	46·38
Cardigan 2	Aberystwyth (Plant Breeding Stn.)	1·05	·98	·84	·90	3·02	3·87	2·95	3·89	2·31	7·72	9·69	7·57	44·79
,, ... 3	Cardigan (County School)	1·52	1·86	·34	·80	3·48	2·12	2·38	2·22	1·56	6·65	11·02	10·36	44·31
,, ... 3	Lampeter (Falcondale).....	1·57	1·41	·56	1·08	3·27	2·66	3·42	2·80	2·48	9·04	11·98	11·79	52·06
,, ... 5	Plynlimon.....	3·60	2·60	2·30	1·50	5·40	9·10	9·00	10·20	4·00	(15·50)	(22·50)	(21·50)	(107·20)
Brecon 7	Swansea W.W. (Cray Res.) No. 1	3·00	2·35	1·70	·90	7·11	3·70	3·81	5·88	2·55	10·02	20·95	19·12	81·09
,, ... 8	Birmingham W.W.(Cors-yr-hwch)	3·66	1·52	1·05	1·93	6·40	5·85	6·06	6·42	3·13	12·13	22·10	18·34	88·59
Radnor 1	Llandrindod Wells (Disserth Rec.)	1·50	·49	·39	·87	3·47	3·94	3·02	2·55	2·28	6·56	10·46	11·43	46·96
Montgomery.... 4	Newtown (Penarth Weir).....	1·58	·50	·38	·95	2·11	2·57	2·55	2·25	1·66	4·65	9·69	10·93	39·82
,, ... 5	Llandysilio Rectory	1·31	·90	·37	·70	1·50	1·98	1·70	2·07	1·22	3·01	6·10	5·82	26·68
,, ... 5	Lake Vyrnwy.....	2·42	1·30	1·24	1·78	3·02	3·51	4·27	6·12	·96	7·92	15·13	15·48	63·15
Flint 2	Rhyl Sewage Works	·85	·91	·08	·76	1·25	1·29	1·88	2·63	1·98	4·06	5·38	4·93	26·00
Denbigh 1	Wrexham (Packsaddle Res.)	1·72	·90	·10	·95	1·47	2·36	1·87	2·37	1·54	4·68	6·81	7·36	32·13
,, ... 2	Llangynhafal (Plâs Drâw)	1·08	1·15	·08	1·01	1·61	2·38	3·05	2·64	1·79	4·49	6·23	5·71	31·12
,, ... 3	Pentre Voelas (Voelas Hall)	1·60	1·72	1·12	1·55	3·68	2·18	3·77	5·35	2·37	8·52	11·30	14·04	57·20
Merioneth 3	Festiniog (Hafod Fawr).....	3·15	2·11	2·30	1·49	4·80	5·01	5·81	12·55	4·25	11·38	16·47	13·96	83·28
,, ... 4	Dolgelly (Bryntirion)	2·46	1·85	1·76	1·60	3·81	5·06	4·66	7·87	4·01	10·18	14·37	10·77	68·40
Carnarvon 2	Llandudno	1·10	1·00	·17	1·61	1·77	2·04	2·07	2·38	1·74	4·19	5·17	5·96	29·20
,, ... 3	Bethesda (Penrhyn Quarries)	2·51	1·74	1·26	1·29	4·22	2·50	3·95	6·41	3·26	9·96	13·85	14·08	65·03
,, ... 4	Abersoch.....	2·42	2·11	·73	·94	3·10	1·96	2·64	3·91	2·14	6·02	9·35	7·22	42·54
,, ... 5	Snowdon (Cwm Dyli)	6·48	2·91	5·20	3·58	8·04	6·26	10·94	17·98	4·69	19·12	27·19	20·40	132·79

Table XXIII.—(*con.*) *Monthly Rainfall*—**MONMOUTH AND WALES**—(*con.*).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Anglesey	Holyhead (Salt Island)	2·39	2·69	·55	·98	2·59	1·36	2·32	3·09	1·61	6·16	7·16	6·50	37·40
,,	Llanerchymedd (Llwydiarth Esgob)	2·18	1·39	·78	1·58	3·53	2·03	2·85	3·53	2·62	6·53	9·02	7·02	43·06
	ISLE OF MAN.													
Isle of Man	Douglas (Borough Cemetery)	3·18	1·99	1·29	1·39	2·79	2·06	2·84	5·00	1·00	7·73	7·47	8·47	45·21
,,	Ramsey (North Promenade)	2·35	1·61	·34	1·01	3·84	1·85	2·05	4·42	·81	6·82	9·32	13·50	47·93
	CHANNEL ISLANDS.													
Jersey	St. Aubins (Belle Vue)	2·78	1·40	·04	2·06	1·19	3·02	1·61	1·19	4·37	7·29	8·24	5·73	38·92
Guernsey	St. Martin's (Les Blanches)	2·45	1·47	·07	2·42	2·19	2·37	2·01	1·46	2·05	5·51	8·03	6·86	36·89
Sark	Pointe Robert	2·16	1·28	·04	1·81	2·31	2·20	2·04	1·73	1·36	4·60	7·86	6·65	34·04
Alderney	St. Anne (Grosnez House)	2·83	1·82	·07	3·94	2·64	3·60	2·03	1·36	2·44	5·04	8·22	6·41	40·40
	SCOTLAND.													
Wigtownshire .. 3	Whithorn (Glasserton)	2·36	2·75	1·14	1·12	2·83	1·92	3·82	5·53	·89	6·08	5·92	7·44	41·80
,, .. 3	Stoneykirk (Ardwell House)	2·42	2·27	·73	1·13	3·57	2·29	3·45	5·47	·94	5·47	6·58	8·45	42·77
,, .. 4	Kirkcowan (Craighlaw)	3·45	2·86	1·86	1·17	4·95	3·43	4·33	7·24	1·08	7·79	9·59	10·47	58·22
Kirkcudbrightsh'e 3	Dalry (Glendarroch)	3·17	2·67	1·32	1·27	4·41	2·34	4·60	6·14	·63	6·97	9·31	13·49	56·32
,, 4	Dalbeattie (Kirkennan)	3·81	2·20	1·24	1·61	4·07	3·13	5·46	7·27	·75	9·29	9·23	11·06	59·12
Dumfriesshire .. 3	Moniaive (Glencrosh)	2·77	2·61	1·16	1·74	4·72	2·68	5·92	5·37	·98	6·66	10·22	11·80	56·63
,, .. 4	Dalton (Kirkwood)	2·29	1·56	1·47	1·37	2·92	3·05	5·92	8·40	·72	6·55	7·35	6·76	48·36
,, .. 5	Langholm (Ewes, Sandyhaugh)	2·15	1·35	1·04	1·45	3·05	2·69	5·91	8·17	·82	5·46	8·96	11·30	52·35
,, .. 5	Eskdalemuir Observatory	2·22	2·07	1·31	1·60	4·23	4·44	7·96	7·74	1·18	6·87	10·92	13·02	63·56
Roxburghshire.. 3	Jedburgh (Jedneuk)	·67	·99	·11	1·42	1·22	1·55	3·20	4·67	·46	2·68	2·63	3·86	23·46
Selkirkshire 4	Caddonfoot (Fairnilee)	1·25	1·73	·19	1·67	1·83	2·19	3·12	4·21	·21	3·64	3·52	4·87	28·43
Peeblesshire 1	Edin. W. W. (Victoria Lodge)	1·33	1·04	·65	1·36	4·16	2·30	3·55	6·17	·86	6·12	7·81	13·55	48·90
,, ... 2	Stobo Castle	·90	1·11	·44	1·55	2·65	1·83	2·36	5·39	·45	4·82	5·10	10·56	37·16
Berwickshire ... 2	Earnscleugh Burn (Blythe Rig)	2·09	1·75	·28	2·03	2·59	2·93	3·78	5·11	·27	4·03	4·60	5·49	34·95
,, ... 4	Marchmont House	2·17	1·84	·17	1·54	1·71	2·12	3·88	4·64	·21	2·90	3·61	3·34	28·13
Haddingtonshire 5	North Berwick Reservoir	·90	1·24	·34	1·91	2·05	1·93	2·46	4·43	·28	2·25	2·42	2·37	22·58
Midlothianshire 5	Pentland Hills (Harperrig)	1·27	1·17	·39	1·85	2·28	2·24	3·11	5·35	·75	4·52	5·36	7·25	35·54

Table XXIII.—(*con.*) *Monthly Rainfall*—**SCOTLAND**—(*con.*).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Midlothianshire 5	Edinburgh (Royal Observatory)..	·81	·85	·20	1·59	1·34	2·49	2·22	3·72	·35	3·04	3·60	3·83	24·04
Lanarkshire 4	Gartcosh (Gartloch Hospital) ..	1·35	1·67	·93	1·44	2·57	2·76	3·30	5·66	1·34	4·82	6·24	8·91	40·99
,, ... 5	Douglas (Kilncroft)	1·18	1·66	·68	1·46	3·83	2·25	3·85	4·43	1·28	5·78	5·18	12·49	44·07
,, ... 5	Strathaven (East Overton Ho.) ..	1·20	1·94	·94	2·39	3·52	2·24	3·78	5·96	1·62	5·30	7·11	9·58	45·58
Ayrshire 3	Dalry (Munnock Reservoir).....	2·57	3·23	1·64	1·77	3·90	4·28	4·62	6·89	1·96	6·57	8·69	10·30	56·42
,, ... 6	Maybole (Culzean Castle Gardens)	2·47	2·16	·96	1·91	2·91	2·70	4·15	5·47	1·27	5·63	5·65	9·24	44·52
,, ... 8	Colmonell (Knockdolian)	2·17	2·02	1·13	1·14	4·47	3·17	2·91	5·25	1·45	5·19	8·50	11·80	49·20
,, ...13	Glen Afton (Ayr Sanatorium) ...	1·78	1·79	·81	1·16	5·72	2·53	3·74	5·96	1·49	7·86	9·01	16·73	58·58
Renfrewshire .. 2	Houston Manse	2·19	2·72	1·15	1·05	3·75	2·99	4·35	6·73	1·24	7·39	8·03	12·22	53·81
Dumbartonshire 2	Cardross (Kilmahew)	1·72	2·21	1·21	1·08	3·83	3·30	3·97	6·19	1·00	5·24	6·67	11·87	48·29
Stirlingshire 1	Falkirk (Westbank Garden)	1·81	1·49	·46	1·56	2·40	2·34	3·16	5·10	·86	4·46	5·69	7·32	36·65
Buteshire 1	Rothesay (Ardencraig)	2·63	3·59	1·67	1·46	3·68	3·55	4·49	7·49	2·24	7·66	7·79	11·37	57·62
,, ... 3	Arran (Dougarie Lodge).....	2·57	3·17	1·33	1·81	4·57	3·35	4·41	6·43	2·13	5·32	7·21	13·08	55·38
Argyllshire 2	Loch Sunart (Glenborrodale)	2·25	1·84	1·26	2·06	5·34	5·24	3·58	7·29	6·60	10·78	8·61	13·94	68·79
,, ... 2	Acharacle (Shielbridge)	2·73	1·45	1·02	2·59	4·30	4·32	5·10	7·38	5·81	10·77	7·20	12·03	64·70
,, ... 3	Morvern (Kingairloch)	4·12	4·02	1·84	3·26	7·73	6·94	7·74	12·27	5·74	16·80	13 83	18·20	102·49
,, ... 5	Glen Etive	2·90	3·42	3·23	3·03	6·12	5·61	5·50	8·57	5·28	18·75	15·00	25·00	103·41
,, ... 6	Dalmally (Manse of Glenorchy) ..	2·77	2·32	1·73	3·31	4·68	5·45	4·58	8·60	5·47	13·05	10·61	19·59	82·16
,, ... 7	Oban	2·66	2·20	1·62	2·74	4·44	3·99	4·98	5·89	3·48	8·95	7·04	12·05	60·04
,, ... 9	Muasdale (Grianan)	3·02	3·12	·93	1·67	4·62	2·75	3·56	6·39	2·92	5·49	7·36	11·67	53·50
,, ...10	Skipness (Claonaig)	2·60	2·80	·96	1·69	4·01	3·95	3·82	7·16	2·40	6·95	7·32	12·07	55·73
,, ...11	Ardrishaig (Canal Office)	2·50	2·82	1·99	2·38	6·06	6·10	3·80	7·08	3·60	10·28	9·86	14·75	71·22
,, ...11	Ardkinglas	2·91	2·70	1·74	2·58	7·52	5·76	5·18	7·51	3·44	10·87	10·87	20·64	81·72
,, ...12	Loch Eck (Benmore)	3·92	4·31	2·16	2·56	6·41	5·85	6·36	11·06	4·10	14·10	14·41	23·19	98·43
,, ...14	Islay (Eallabus)	2·63	2·78	1·04	2·43	4·24	4·11	3·82	8·09	2·68	9·21	8·59	11·93	61·55
,, ...14	Jura (Ardfin)	2·98	3·16	·94	2·27	4·20	4·08	4·05	6·76	2·28	9·64	8·45	11·43	60·24
,, ...14	Mull (Bunessan)	2·97	4·26	1·20	2·26	4·16	4·65	3·78	9·13	3·68	7·42	7·01	10·02	60·54
,, ...14	Mull (Benmore).....	(7·00)	4·90	3·20	5·30	9·30	9·30	12·40	18·00	(8·20)	(20·00)	14·60	18·80	(131·00)
,, ...14	Mull (Glencannel)	6·15	4·72	2·17	3·73	8·58	7·53	7·76	11·35	9·66	21·37	14·79	22·14	119·95
,, ...14	Tiree (Cornaigmore Sch.)	1·98	3·16	·69	1·96	4·17	3·09	3·72	5·57	3·56	7·06	5·42	6·88	47·26
Fifeshire 2	Kirkcaldy (Munro Street)	1·10	1·45	·39	1·47	2·38	1·24	2·53	4·29	·48	2·88	3·88	3·35	25·44
,, ... 3	Cupar (Fife & Kinross Asylum) ..	1·41	2·11	·48	1·35	2·41	1·71	2·71	3·67	·45	2·64	4·06	4·31	27·31

Table XXIII.—(*con.*) *Monthly Rainfall*—**SCOTLAND**—(*con.*).

County and River Division.		Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
			in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Perthshire	3	Loch Drunkie	2·40	3·70	1·15	·95	3·70	3·45	4·10	7·50	2·35	9·00	10·40	11·70	60·40
,,	3	Glengyle	3·30	3·20	1·70	2·00	7·25	5·30	6·95	10·05	3·45	11·55	15·40	20·45	90·60
,,	4	Glendevon (Tormaukin)	1·50	2·46	·62	1·39	4·09	3·10	4·93	7·06	1·20	6·29	7·60	7·77	48·01
,,	7	Lochearnhead (Edinchip)	1·94	2·47	1·26	2·08	5·45	2·96	3·53	6·44	2·13	8·02	9·18	16·47	61·93
,,	7	Crieff (Strathearn Hydro)	1·79	2·81	·57	·99	2·70	2·08	3·47	6·37	·82	5·37	5·43	6·85	39·25
,,	11	Aberfeldy (Dall Avon)	1·14	2·01	·66	·94	3·48	1·82	2·36	2·64	·89	4·91	4·61	11·28	36·74
,,	14	Loch Rannoch (Dall)	1·10	2·34	·98	1·73	3·24	1·82	2·02	3·89	1·85	5·95	6·69	12·86	44·47
,,	14	Glen Bruar (Bruar Lodge)	1·31	1·81	1·16	1·95	4·28	2·79	4·92	5·65	2·40	7·08	5·64	9·70	48·69
,,	15	Kirkmichael (Ballintuim Ho.)	1·66	3·32	·42	1·10	3·53	1·77	3·03	4·53	1·39	4·86	4·35	9·21	39·17
Angus (Forfar)	1	Kettins School	1·65	1·85	·56	·70	2·82	1·63	3·25	3·53	·54	3·73	3·75	6·04	30·05
,,	3	Arbroath (W. Cemetery)	1·26	1·45	·33	1·18	2·67	1·24	3·62	3·53	·65	2·32	3·58	3·91	25·74
,,	3	Glen Prosen (Pearsie House)	3·05	2·07	1·05	1·43	2·75	2·07	3·90	4·68	·78	3·85	4·27	6·85	36·75
Kincardineshire	1	Marykirk (Balmakewan)	1·81	3·11	·13	1·22	2·27	1·74	3·09	4·91	·51	2·77	3·97	6·68	32·21
,,	3	Strachan (Bridge of Dye)	2·34	3·56	·16	2·15	3·44	2·27	4·50	3·87	·82	3·98	5·47	9·42	41·98
Aberdeenshire	1	Glen Muick	1·03	·95	·38	1·93	3·48	2·01	6·00	3·57	1·06	5·43	5·66	10·12	41·62
,,	1	Ballater (Irrigation Farm)	1·19	1·33	·25	2·51	1·63	1·20	4·36	3·78	·81	2·69	2·57	8·06	30·38
,,	1	Logie Coldstone School	1·50	1·39	·19	2·32	1·49	1·60	3·74	2·22	1·18	2·34	2·25	4·85	25·07
,,	2	Aberdeen (King's College)	1·84	1·72	·22	1·75	2·28	1·84	3·80	2·80	1·28	3·20	3·55	6·54	30·82
,,	2	Craibstone (Woodlands Field)	2·03	2·23	·28	1·99	2·33	2·32	4·27	2·77	1·10	3·60	3·56	7·62	34·10
,,	3	Haddo House	2·68	2·24	·38	2·09	1·82	2·57	2·58	2·91	1·90	4·03	2·59	6·58	32·37
,,	4	Peterhead (Forehill Works)	3·04	1·73	·42	2·26	1·32	2·18	2·57	3·73	1·77	3·63	2·78	5·96	31·39
,,	5	Huntly (Cruchie)	1·99	1·65	·36	2·34	1·61	3·04	3·34	3·45	1·52	3·89	2·10	5·51	30·80
Banffshire	2	Turriff (Forglen Gardens)	2·43	1·36	·58	2·72	1·34	2·41	1·91	3·85	1·35	3·74	2·00	6·04	29·73
Morayshire	2	Gordon Castle	1·19	·72	·25	1·82	1·34	2·41	1·96	2·74	1·50	3·49	1·88	3·91	23·21
,,	3	Grantown-on-Spey	1·34	·35	·24	2·58	2·66	2·05	4·03	4·27	1·37	4·30	1·41	2·65	27·25
,,	3	Aberlour (Wester Elchies)	1·40	·51	·28	2·83	1·68	3·35	3·21	3·12	1·89	3·95	1·68	2·89	26·79
Nairnshire	2	Nairn (Achareidh)	·93	·40	·33	1·49	2·65	1·81	2·09	4·10	1·76	3·46	1·45	1·95	22·42
Inverness-shire	3	Cluny Castle	·86	1·05	·91	2·09	2·72	2·31	3·42	4·28	2·27	6·20	4·94	8·46	39·51
,,	3	Alvie Manse	·71	·50	·45	1·94	2·43	1·63	3·63	4·24	1·97	5·92	3·51	4·35	31·28
,,	6	Fort Augustus (St. Benedict's)	1·09	·57	·76	1·98	2·48	2·40	2·93	4·05	2·67	7·30	6·17	8·24	40·64
,,	6	Loch Ness (Foyers)	·60	·21	·59	1·72	2·38	2·33	3·84	4·37	2·05	5·96	5·49	7·50	37·04
,,	7	Loch Quoich (Glenquoich)	3·68	2·94	3·96	6·08	5·60	7·41	6·61	11·29	10·07	23·84	14·20	22·78	118·46

Table XXIII.—(*con.*) *Monthly Rainfall*—**SCOTLAND**—(*con.*).

County and River Division.		Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
			in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Inverness-shire..	12	Loch Nevis (Inverie Gdns.).....	3·11	1·94	2·10	5·14	5·32	4·83	5·01	8·70	8·51	16·37	9·76	13·40	84·19
,, ..	13	Arisaig House	2·17	1·51	1·42	3·99	4·46	5·33	3·82	7·73	7·58	12·95	7·19	10·02	68·17
,, ..	17	Glenleven (Corrour Station)	1·90	1·92	1·82	2·08	5·04	3·35	4·74	7·94	3·30	12·90	12·71	14·65	72·35
,, ..	17	Fort William	1·99	2·10	1·83	3·52	5·38	4·64	5·90	8·93	5·09	13·97	10·10	16·28	79·73
,, ..	18	Hyskier	3·12	1·35	·63	1·69	3·99	3·94	2·10	7·47	4·10	9·75	5·66	7·04	50·84
,, ..	18	Skye (Kyleakin, Dunringell)	2·79	1·50	1·25	2·79	4·26	3·96	4·10	6·42	6·30	11·25	8·12	11·54	64·28
,, ..	18	Skye (Portree)	2·50	1·60	1·64	2·08	3·49	4·07	5·53	7·59	7·71	12·81	8·04	10·69	67·75
,, ..	18	Skye (Dunvegan)	2·68	2·04	2·05	1·36	4·03	3·70	5·03	8·83	7·66	9·80	6·80	9·13	63·11
,,	19	N. Harris (Amhuinsuidth Castle)	2·59	1·78	·84	2·46	3·12	3·81	2·46	6·05	8·28	7·33	6·26	7·25	52·23
Ross & Cromarty	4	Strathpeffer	·69	·57	·78	1·56	1·74	2·17	1·89	3·31	2·45	3·61	3·80	4·91	27·48
,,	4	Cromarty House	·54	·45	·27	·95	2·32	2·17	1·55	3·42	1·90	3·87	1·97	1·88	21·29
,,	4	Alness (Ardross Castle)	·99	·65	·61	1·89	2·08	1·68	2·39	5·13	2·39	4·87	3·38	4·05	30·11
,,	7	Braemore (Loch a' Bhraoin)	1·37	·41	1·67	4·46	1·88	4·15	3·35	6·85	5·03	10·71	6·87	11·12	57·87
,,	7	Ullapool	1·37	·88	1·96	3·31	1·59	3·49	2·57	8·32	5·35	8·18	4·39	5·41	46·82
,,	8	Loch Torridon (Bendamph)	2·16	1·54	1·94	3·90	3·60	5·11	5·45	8·00	8·54	13·86	9·16	13·47	76·73
,,	9	Loch Carron (Dunhulladale)	1·58	1·41	2·44	4·40	3·61	5·14	3·80	8·17	8·30	14·93	6·86	10·64	71·28
,,	10	Stornoway	1·85	1·44	1·23	1·59	2·22	3·26	2·91	5·83	6·19	7·61	5·86	7·69	47·68
Sutherlandshire	1	Lairg	1·26	·74	1·59	2·16	2·07	2·64	1·45	4·95	3·75	4·78	3·55	6·74	35·68
,,	2	Golspie (Technical School)	·95	·65	·27	2·70	2·64	2·78	1·51	4·70	2·42	3·93	2·20	3·34	28·09
,,	4	Skerray (Borgie)	2·24	·92	·96	2·21	2·31	3·37	1·82	5·06	5·26	6·33	3·35	7·12	40·95
,,	4	Tongue	2·08	·91	·58	2·14	2·34	3·75	1·78	5·08	4·77	7·04	3·21	6·20	39·88
,,	5	Loch More (Achfary)	2·97	1·98	1·97	4·54	2·56	6·92	4·09	9·46	11·80	14·76	9·45	11·20	81·70
Caithness-shire..	2	Wick	1·28	·67	·88	1·69	1·94	3·81	1·31	4·79	3·52	4·41	3·20	5·60	33·10
,, ..	3	Altnabreac	1·75	·87	·50	1·68	1·41	3·35	2·12	6·01	4·88	5·94	2·91	7·08	38·50
,, ..	3	Thurso (Buckies)	2·15	1·08	·90	1·73	1·63	3·74	1·83	6·05	5·08	6·24	4·21	8·45	43·09
Orkney		Pomona (Deerness)	1·35	1·07	·89	1·49	1·73	3·30	1·48	4·80	5·94	6·13	4·45	5·71	38·34
Shetland		Lerwick Observatory	2·56	·82	·91	1·27	1·71	2·47	1·17	4·42	4·05	7·77	6·11	6·94	40·20

Table XXIII.—(*con.*) *Monthly Rainfall*—**IRELAND.**

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Co. Cork 4	Garinish Island	3·81	8·85	2·49	1·99	4·65	4·24	7·02	7·16	1·48	7·79	13·21	16·41	79·10
,, ... 6	Castletownshend (Seafield)	2·52	6·72	1·11	1·40	3·40	2·62	4·19	3·63	1·00	4·82	9·77	11·87	53·05
,, ... 6	Dunmanway (The Rectory).....	3·29	9·91	2·05	2·10	4·88	2·47	6·59	4·88	1·25	5·82	12·25	14·72	70·21
,, ... 7	Cork (University College).....	2·23	8·16	·89	1·46	4·05	1·21	4·29	2·16	·82	3·22	6·91	10·78	46·18
,, ... 8	Roches Point.....	3·63	6·76	1·02	·97	4·38	2·71	3·74	3·50	1·55	3·77	6·82	7·98	46·83
,, ... 9	Mallow (Longueville)	1·48	7·36	·72	1·68	2·57	1·49	5·09	2·54	·87	3·62	7·06	10·31	44·79
,, ... 9	Kanturk (Castlecor)	1·48	6·98	·62	2·00	2·55	1·72	4·97	2·60	1·24	4·32	6·50	8·69	43·67
Co. Kerry 3	Cahirciveen (Valentia Obs.)	3·56	7·06	1·37	1·70	3·53	3·40	5·35	5·09	1·53	6·29	9·80	11·62	60·30
,, ... 3	Killarney (Flesk Mills).....	1·93	6·01	1·14	2·25	2·86	1·78	6·61	3·42	1·97	6·38	10·71	15·54	60·60
,, ... 3	Killorglin (Callinafercy)	1·58	4·84	·53	1·63	2·35	1·58	6·10	5·22	1·75	7·08	9·56	11·81	54·03
,, ... 3	Bally McElligott Rectory.....	(1·50)	(4·50)	·45	1·39	1·49	1·71	6·79	(4·15)	1·65	6·46	7·15	9·06	(46·30)
,, ... 4	Darrynane Abbey	2·77	6·62	1·18	1·62	2·92	2·97	5·34	4·39	1·20	6·00	10·04	9·45	54·50
,, ... 4	Kenmare (Dromore Castle)	3·99	8·45	1·79	2·73	3·16	4·60	7·63	5·92	1·43	8·37	13·19	15·00	76·26
Co. Waterford .. 3	Waterford (Brook Lodge)	2·48	8·67	1·01	1·59	3·61	2·66	3·46	2·52	1·50	3·41	6·90	8·53	46·34
,, .. 3	Carrick-on-Suir (Seskin)	2·69	8·96	·91	2·09	4·06	2·27	4·59	2·57	1·12	2·93	7·24	9·72	49·15
Co. Tipperary .. 1	Nenagh (Traverston)	2·18	3·52	·79	1·58	3·29	1·65	3·77	5·04	·77	5·43	7·29	10·80	46·11
,, .. 1	Nenagh (Castle Lough)	1·66	3·22	1·04	1·31	2·43	1·40	3·95	5·83	·89	5·63	5·53	8·80	41·69
,, .. 3	Clonmel (Coolgreany)	1·69	3·70	·47	2·51	3·98	2·41	3·78	2·84	1·13	2·92	4·66	10·06	40·15
,, .. 3	Cashel (Ballinamona)	1·59	3·71	·69	2·18	2·82	1·64	3·63	3·27	1·13	3·60	4·98	8·21	37·45
,, .. 4	Roscrea (Timoney Park)	1·56	3·03	·95	·66	1·83	1·57	3·52	3·77	·62	4·24	4·04	7·15	32·94
Co. Limerick .. 2	Abbeyfeale (Springmount School)	1·24	3·72	·60	1·80	1·95	1·32	4·86	3·98	1·69	6·71	8·14	9·24	45·25
,, .. 2	Knocklong (Kilfrush)	1·46	3·93	·63	1·59	2·91	1·53	4·38	3·18	1·11	3·64	6·20	8·71	39·27
,, .. 2	Foynes (National School)	1·81	3·57	·69	1·11	1·76	·80	4·25	4·01	·68	5·35	6·74	9·52	40·29
,, .. 2	Limerick (Mulgrave Street).....	1·69	3·29	1·06	1·33	1·85	1·77	4·01	4·96	·93	4·01	5·90	7·83	38·63
Co. Clare 2	Inagh (Mount Callan)	3·00	4·68	1·54	1·23	3·14	2·40	7·51	8·14	2·11	9·80	10·09	12·56	66·20
,, ... 3	Dromoland Castle	2·01	3·85	1·02	1·30	2·11	1·43	4·24	4·96	·93	5·61	6·40	8·27	42·13
,, ... 3	Tuamgraney (Raheen Ho.)	1·80	3·09	·95	1·40	2·32	1·91	4·03	4·95	1·18	5·07	5·72	8·55	40·97
Co. Wexford.... 2	Foulks Mill (Longraigue).....	2·45	8·86	1·44	1·15	4·65	2·48	3·15	3·04	1·59	4·23	7·89	10·17	51·10
,, ... 3	Johnstown Castle	2·38	6·42	1·46	·94	4·45	2·36	3·26	2·19	1·96	4·84	8·85	10·78	49·89
,, ... 3	Enniscorthy (Woodbrook)	3·01	8·71	1·13	1·13	5·05	2·53	3·55	4·51	1·35	4·90	8·55	11·70	56·12
,, ... 4	Gorey (Courtown House)	2·82	6·17	·59	·79	3·32	2·26	2·83	2·65	1·29	3·37	7·38	8·78	42·25
Co. Kilkenny .. 2	Kilkenny Castle.....	1·67	3·22	·81	1·40	2·65	1·95	2·13	3·35	·93	3·05	4·83	7·48	33·47

Table XXIII.–(*con.*) *Monthly Rainfall*—**IRELAND**—(*con.*).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Co. Wicklow.... 3	Rathdrum (Avondale)	3·40	5·54	1·06	·73	3·51	1·80	2·31	4·08	·99	4·66	8·69	11·46	48·23
,, ... 4	Newcastle (Killadreenan).....	2·44	4·11	·47	1·45	2·71	1·61	1·97	3·36	·66	2·75	7·34	9·79	38·66
Co. Carlow 2	Bagnalstown (Fenagh House) ..	1·70	3·24	1·19	·67	2·74	2·07	2·80	3·25	·85	3·54	6·83	7·91	36·79
,, ... 3	Hacketstown Rectory	2·46	4·22	1·10	·86	2·84	2·00	2·86	4·16	·98	3·88	6·65	8·48	40·49
†Co. Leix..... 2	Abbey Leix (Blandsfort)	1·96	2·95	·89	1·40	2·64	1·99	3·31	4·08	·64	4·05	4·67	7·85	36·43
,, ... 3	Mountmellick (Summer Grove) ..	2·07	3·73	1·01	·96	2·43	1·47	3·65	4·20	·72	4·87	4·95	7·99	38·05
*Co. Offaly 1	Birr Castle	1·47	3·24	·53	·91	2·57	1·69	3·47	4·96	·83	4·06	3·98	6·50	34·21
Co. Kildare 2	Straffan House	1·04	2·55	·64	1·14	1·44	1·33	2·88	4·48	·52	3·41	3·71	5·70	28·84
Co. Dublin 2	Howth Castle	1·76	3·46	·81	1·28	1·47	1·56	1·86	4·40	·40	2·57	3·68	5·99	29·24
,, ... 3	Balbriggan (Ardgillan)	1·92	4·13	·42	1·32	1·76	1·31	1·77	4·35	·33	2·85	4·08	5·83	30·07
Co. Meath 2	Dunboyne (Stirling, Clonee)	1·09	2·77	·44	1·40	1·81	1·40	2·58	4·73	·52	3·73	4·58	5·25	30·30
,, ... 4	Summerhill House	1·79	3·60	·53	1·63	2·24	1·70	3·04	4·32	·47	4·22	4·36	5·56	33·46
,, ... 4	Kells (Headfort)	1·81	3·66	·71	1·16	2·61	2·95	3·23	4·30	·97	4·69	4·60	6·25	36·94
Co. Westmeath . 1	Moate (Coolatore)	1·97	4·04	·52	·92	2·20	2·40	3·67	4·15	1·24	4·40	3·68	5·43	34·62
,, . 1	Mullingar (Belvedere House)	2·35	3·50	·61	·68	2·70	2·00	3·06	5·07	·53	5·21	3·84	6·51	36·06
,, . 1	Mullingar (Ballynegall Gdns.) ..	2·08	4·21	·75	1·07	2·07	2·29	3·46	5·18	1·45	5·85	5·68	7·91	42·00
,, . 1	Castlepollard (Pakenham Hall) ..	1·88	3·42	·75	1·23	2·34	3·38	3·75	5·55	1·53	5·54	3·98	6·06	39·41
Co. Louth 2	Dundalk (Aughneskea Reservoir)	2·86	6·10	·71	·99	2·05	2·44	3·64	6·38	1·12	4·21	5·02	6·60	42·12
,, ... 3	Greenore	2·22	3·91	·59	1·12	2·06	1·71	3·12	4·67	·80	3·15	3·05	5·18	31·58
Co. Longford .. 2	Ballymahon (New Castle)	1·92	3·67	·88	·92	1·94	2·80	3·64	4·64	1·61	4·42	3·92	6·66	37·02
,, .. 2	Castle Forbes Gardens	2·50	3·89	·52	1·11	2·08	1·97	4·58	5·69	1·18	4·76	5·02	7·46	40·76
Co. Galway 3	Galway (Grammar School)	2·65	3·41	1·16	1·92	1·50	1·71	4·91	5·59	1·70	5·30	5·71	7·04	42·60
,, ... 3	Ballynahinch Castle	3·47	6·64	·93	1·57	3·71	3·89	10·47	9·33	2·31	7·68	9·09	11·52	70·61
,, ... 5	Killimor (Ramore)	1·92	3·14	·61	1·19	1·97	1·69	4·40	6·01	1·40	5·11	4·26	6·77	38·47
,, ... 5	Ahascragh (Clonbrock)	1·96	3·11	·84	1·34	2·05	1·83	5·03	5·09	1·01	4·20	5·33	8·58	40·37
Co. Roscommon 4	Strokestown (Castlenode)	2·10	3·90	·43	·82	1·84	1·48	4·42	4·95	1·06	4·54	4·51	7·33	37·38
,, 4	Boyle	2·26	3·88	·20	·83	1·84	2·15	3·22	4·83	1·10	4·58	5·14	7·39	37·42
Co. Mayo 2	Castlebar Rectory.....	1·93	3·76	·57	1·58	2·99	1·88	4·95	7·44	1·46	7·34	5·84	10·17	49·91
,, ... 4	Mallarany	2·60	4·03	·97	1·45	3·32	3·44	9·41	8·67	2·49	9·85	8·65	11·01	65·89
,, ... 5	Aasleagh House.....	5·91	8·29	2·20	2·37	5·95	5·14	11·52	12·05	2·29	11·11	14·33	20·55	101·71
,, ... 5	Delphi Lodge	6·09	7·67	1·52	2·65	5·81	5·76	13·98	12·22	3·40	11·94	13·94	17·82	102·80
,, ... 6	Tourmakeady (Drimbaun)	3·06	5·06	1·01	1·15	2·48	2·63	6·59	6·22	·83	5·34	8·39	13·33	56·09

† Formerly called Queen's County.

* Formerly called King's County.

Table XXIII.—(*con.*) *Monthly Rainfall*—**IRELAND**—(*con.*).

County and River Division.		Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
			in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Co. Sligo	2	Collooney (Markree Obsy)	1·57	3·15	·51	1·32	2·71	2·89	4·92	6·52	1·13	5·67	6·52	7·95	44·86
,,	2	Sligo (Ard-na-veagh)	1·78	2·65	·44	1·39	2·94	2·67	4·77	6·79	1·55	5·96	5·61	6·67	43·22
Co. Cavan	1	Crossdoney (Kevit Castle)	2·07	3·77	·48	1·06	3·09	2·54	3·66	6·01	1·92	5·83	4·72	7·54	42·69
,,	1	Belturbet (Cloverhill)	1·85	2·98	·55	·79	2·30	2·62	3·19	5·35	1·53	5·40	3·83	5·93	36·32
,,	2	Glangevlin	4·29	3·92	·79	1·34	4·06	3·41	4·64	6·20	1·09	5·98	7·05	10·83	53·60
Co. Fermanagh	1	Enniskillen (Portora School)	1·33	3·07	·20	1·01	2·05	2·44	4·01	6·27	1·48	4·36	4·38	7·20	37·80
,,	1	Belleek (Heronshaw)	1·41	2·68	·40	1·39	1·95	2·85	3·74	5·91	1·35	6·53	5·85	7·45	41·51
Co. Armagh	3	Lurgan (Belle Vue)	1·56	2·19	·25	·90	2·32	2·48	3·02	4·68	1·02	3·33	3·04	5·16	29·95
,,	5	Armagh Observatory	1·30	2·26	·34	·85	2·74	1·85	2·51	5·52	1·43	5·55	3·51	5·88	33·74
Co. Down	1	Newry (Bridge Street House)	2·71	4·59	·84	·89	2·93	2·10	3·50	5·46	·58	4·14	4·98	7·81	40·53
,,	2	Seaforde	2·35	4·09	·62	1·41	2·59	2·16	2·48	5·81	·60	3·84	6·05	8·90	40·90
,,	4	Donaghadee (Coastguard Station)	1·98	2·61	·56	1·21	2·95	2·61	2·96	4·31	·80	3·45	4·99	6·99	35·42
Co. Antrim	1	Belfast (Queen's University)	2·23	3·74	·62	·79	2·49	2·29	2·90	4·46	·73	4·23	4·69	7·58	36·75
,,	2	Larne (Sallagh Springs)	2·91	3·74	·70	1·64	3·51	2·85	3·76	6·34	1·11	6·28	7·33	11·49	51·66
,,	2	Glenarm Castle	2·71	3·45	·66	1·29	3·41	2·58	2·27	6·31	1·16	6·23	6·64	10·70	47·41
,,	3	Ballycastle (Sheskburn)	1·51	2·02	·38	1·19	2·62	2·65	2·95	5·36	1·53	6·37	6·39	9·06	42·03
,,	5	Ballymena (Harryville)	1·95	3·24	·51	1·68	3·38	3·05	2·75	6·56	1·37	6·75	5·11	7·08	43·43
Co. Londonderry	1	Londonderry (Dunruadh)	1·15	1·96	·52	1·65	2·16	3·64	3·79	6·16	1·67	5·53	5·01	6·82	40·06
,,	5	Glenedra Lodge	2·38	3·22	·88	2·32	4·51	4·07	3·98	8·93	1·88	9·10	7·95	11·41	60·43
,,	5	Limavady (Drenagh)	1·23	1·84	·34	1·10	1·89	2·70	2·82	4·94	1·16	6·91	3·99	6·51	35·63
Co. Tyrone	2	Donaghmore	1·98	4·29	·43	1·66	3·04	3·11	3·43	8·09	1·32	6·96	4·35	7·95	46·61
,,	3	Omagh (Edenfel)	1·48	3·04	·48	1·42	2·41	2·73	4·05	6·85	1·23	6·00	4·26	7·71	41·66
,,	3	Sion Mills (Sion House)	1·48	2·70	·55	1·65	2·65	2·75	3·69	6·29	1·06	6·67	5·18	8·13	42·80
Co. Donegal	1	Malin Head	1·37	1·72	·32	1·21	1·92	3·44	2·96	5·38	1·78	5·18	4·26	6·80	36·34
,,	3	Milford (The Manse)	1·23	2·36	·46	2·01	1·78	3·37	3·80	6·52	1·86	5·23	4·87	7·30	40·79
,,	3	Dunfanaghy (St. Patrick's)	1·22	2·59	·25	1·80	2·34	3·74	2·81	5·38	2·25	4·64	5·04	7·97	40·03
,,	5	Killybegs (Rockmount)	1·36	4·54	·90	1·80	2·34	4·26	5·00	8·67	2·58	7·95	8·07	10·56	58·03

Table XXIV.—*Monthly Rainfall in* 1929; *the Average,* 1881–1915, *being taken as* 100.

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
		%	%	%	%	%	%	%	%	%	%	%	%	%
London 2	St. Pancras (Camden Square) ..	52	35	1	86	79	64	92	96	15	103	232	175	92
Kent 1	Tenterden (Ashenden)	64	51	2	61	101	57	67	84	57	94	211	248	102
,, ... 2	St. Peter's	79	60	19	67	62	71	35	96	20	120	165	205	91
,, ... 4	Edenbridge (Falconhurst)	55	31	2	48	133	70	65	128	17	119	254	241	109
Sussex 1	Compton (Compton House)	47	62	5	42	172	68	74	75	31	102	254	189	102
,, ... 3	Brighton W.W. (Lewes Road) ..	60	84	4	37	131	164	70	114	39	105	276	206	118
Hampshire 1	Ventnor (Royal National Hosp.)	66	70	12	76	161	86	74	91	28	141	215	177	108
,, ... 3	Fordingbridge (Oaklands)	50	43	9	46	116	65	72	64	19	124	285	195	105
,, ... 8	Sherborne St. John	57	31	3	54	75	61	53	34	18	98	253	195	87
Hertfordshire 3	Royston (Therfield Rectory) ...	89	42	4	106	103	39	117	25	13	124	221	174	92
Buckinghamshire . 3	Slough (Upton)	53	31	2	57	154	42	60	51	20	116	258	188	93
Oxfordshire 3	Oxford (Magdalen College)	63	34	5	90	46	46	54	43	7	106	267	191	86
Northamptonshire. 4	Pitsford (Sedgebrook).....	83	32	11	107	96	54	73	50	44	111	257	202	98
Cambridgeshire ... 2	March	111	40	7	69	81	40	98	31	19	121	190	178	86
Essex..... 4	Chelmsford (County Laboratory)	91	30	3	140	124	31	80	66	42	142	201	192	99
Suffolk 1	Hawkedon Rectory.....	106	36	2	110	70	57	77	51	51	107	177	174	88
,, ... 3	Rendlesham Hall.....	87	36	0	125	60	30	157	63	27	107	190	187	96
,, ... 4	Lowestoft (Belle Vue Park)....	81	41	2	83	46	33	106	58	10	91	140	187	79
Norfolk 1	Norwich (Eaton).....	93	53	4	69	49	41	144	49	30	102	133	189	86
,, ... 4	Little Dunham (Dunham Cot.)..	131	50	14	61	89	55	112	46	19	110	182	198	93
Wiltshire 1	Calne (High Street).....	52	36	6	60	93	64	76	72	20	119	256	212	97
Dorsetshire 3	Weymouth (Westham House) ..	66	88	7	43	145	99	69	72	20	111	243	184	106
South Devonshire . 2	Launceston (Polapit Tamar) ...	66	47	13	55	198	113	76	122	25	165	290	207	126
,, . 4	Ashburton (Druid House)	77	78	11	29	178	84	65	82	20	140	346	193	124
,, . 6	Cullompton	56	67	9	45	124	113	51	105	40	143	305	190	114
North Devonshire . 2	Barnstaple (N. Dev. Athenæum)	58	57	19	38	154	117	76	98	20	143	223	149	104
Cornwall 2	Penzance (Morrab Gardens)	83	100	17	57	220	149	67	93	16	154	269	152	122
,, ... 2	St. Austell (Trevarna).....	102	112	13	52	176	128	63	85	16	165	266	154	120
Somersetshire 1	Chewton Mendip (The Priory) ..	42	46	6	33	94	61	73	105	21	165	240	171	98
Gloucestershire ... 7	Cirencester (Gwynfa)	47	30	10	52	143	56	64	67	10	133	279	217	101
Shropshire 3	Church Stretton (Wolstaston) ..	74	30	14	38	102	121	108	70	70	113	277	240	113
Staffordshire 2	Market Drayton (Old Springs) ..	63	39	25	42	91	78	71	85	72	148	226	182	100

Table XXIV.—*Monthly Rainfall in* 1929; *the Average,* 1881–1915, *being taken as* 100—*(con.).*

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
		%	%	%	%	%	%	%	%	%	%	%	%	%
Worcestershire ... 1	Malvern (Free Library)	64	41	5	51	89	73	91	51	36	149	344	242	112
Warwickshire 3	Farnborough	81	27	4	81	84	78	83	75	35	99	272	255	105
,, ... 4	Birmingham (Edgbaston)	62	33	8	45	84	84	67	76	50	148	299	199	104
Leicestershire 4	Belvoir Castle Gardens	72	30	4	71	57	82	58	62	35	100	200	163	82
Lincolnshire 3	Boston (Black Sluice, Skirbeck).	121	38	18	45	65	87	79	36	32	99	203	186	88
,, ... 3	Lincoln (Skellingthorpe Hall)..	97	56	21	56	48	53	50	85	12	104	226	164	85
Derbyshire 6	Derby (L.M. & S. Rly.)	63	27	12	58	121	52	66	77	33	117	234	146	89
S. Lancashire 3	Manchester (Whitworth Park) ..	73	53	45	56	123	38	100	113	87	157	245	186	112
C. ,, ... 1	Stonyhurst College	48	30	45	47	112	58	102	158	68	150	174	179	105
C. ,, ... 3	Southport (Hesketh Park)	55	44	38	48	94	56	90	116	69	128	198	174	100
N. ,, ... 2	Ulverston (Poaka Beck).....	67	35	21	82	97	97	116	144	62	136	216	158	111
Yorkshire, W.R. . 7	Rotherham (Moorgate Grange)..	72	43	4	53	55	52	37	62	82	104	204	173	82
,, ,, . 9	Bradford (Lister Park)	76	31	12	48	75	38	78	81	30	104	211	221	92
,, ,, .10	York (Cherry Hill)	124	34	10	38	31	60	79	92	35	91	173	229	88
,, E.R. .. 3	Hull (Pearson Park)	116	54	7	68	65	70	73	71	44	70	169	159	83
,, N.R. .. 1	Leyburn (Bolton Hall)	46	40	4	66	68	68	111	97	53	109	142	222	91
,, ,, .. 2	Felixkirk (Mount St. John)	147	66	12	78	88	85	78	102	42	95	138	187	96
,, ,, .. 5	Scarborough	115	79	7	72	74	71	99	76	15	58	108	186	83
,, ,, .. 6	Middlesbrough (Albert Park) ..	151	42	7	72	60	113	81	92	68	74	117	129	86
Northumberland .. 3	Newcastle (Town Moor)	128	45	24	87	38	69	68	93	39	54	94	122	73
,, .. 4	Hallington(Fawcett)(Newc.W.W.)	83	55	12	107	44	86	138	83	65	82	118	150	88
,, .. 6	Ilderton (Lilburn Tower Gdns.)	100	98	7	60	45	82	180	150	19	75	112	176	94
Cumberland 1	Carlisle (Scaleby).....	42	30	25	67	54	100	142	144	47	135	159	164	101
,, ... 2	Borrowdale (Seathwaite)	28	33	19	80	115	88	164	140	47	152	218	147	105
Westmorland 1	Appleby (Castle Bank)	34	24	10	87	85	86	135	116	83	146	202	176	104
Monmouthshire .. 3	Abergavenny (Larchfield)	52	48	7	37	101	105	110	40	50	168	320	278	124
Glamorganshire .. 3	Ystalyfera (Wern House)	53	26	40	28	176	101	88	100	37	144	290	204	117
,, .. 5	Cardiff (Ely Pumping Station) ..	48	53	18	26	138	93	71	74	15	132	264	164	100
Carmarthenshire .. 2	Carmarthen (The Friary)	60	40	53	38	160	85	89	69	33	141	280	226	117
Pembrokeshire ... 4	Haverfordwest (Grammar School)	78	79	45	36	198	72	105	74	37	129	269	220	122
Radnorshire 1	Birmingham W.W. (Tyrmynydd)	35	27	10	37	127	109	92	58	63	130	217	193	99
Montgomeryshire .. 3	Llangurig (Dernol)	29	30	6	27	102	109	88	60	45	117	191	171	88

Table XXIV.—*Monthly Rainfall in* 1929; *the Average,* 1881–1915, *being taken as* 100—(*con.*).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
		%	%	%	%	%	%	%	%	%	%	%	%	%
Montgomeryshire.. 5	Lake Vyrnwy (Bank Cynon Isaf)	39	28	24	48	86	94	115	110	67	131	240	225	111
Flintshire 1	Northop (Soughton Hall)	52	36	15	61	97	104	97	101	65	109	190	204	101
Merionethshire ... 4	Dolgelly (Bryntirion)	43	42	36	44	115	145	109	140	94	167	232	157	116
Carnarvonshire ... 2	Llandudno	43	48	8	89	93	100	87	79	76	117	167	192	97
,, ... 3	Llandwrog (Glynllivon Park) ...	54	45	35	37	131	91	75	91	81	146	222	182	109
Anglesey	Holyhead (Salt Island)	82	110	21	47	132	63	89	97	60	154	173	156	107
Isle of Man	Douglas (Borough Cemetery) ...	95	62	44	57	112	85	93	131	31	170	159	171	110
Wigtownshire 3	Stoneykirk (Ardwell House)	82	87	28	54	142	94	119	146	34	151	165	206	118
Kirkcudbrightshire 3	Dalry (Glendarroch)	57	53	29	41	140	84	128	128	17	133	156	190	103
,, 4	Auchencairn (Torr House)	90	47	41	59	122	83	135	145	28	160	185	184	115
Dumfriesshire 3	Dumfries (Crichton Roy. Inst.)..	59	36	27	50	127	82	148	124	15	140	185	178	105
Roxburghshire.... 3	Hawick (Wolfelee)	42	32	7	66	110	66	111	177	27	77	117	178	88
Peebleshire 2	Stobo Castle.....	30	40	15	74	117	78	81	151	18	140	154	278	106
Berwickshire 4	Marchmont House	96	88	6	76	69	92	127	140	9	76	120	119	87
Haddingtonshire .. 5	North Berwick Reservoir	52	79	18	136	103	116	95	140	13	76	108	110	89
Midlothianshire .. 5	West Calder (Addiewell).....	31	36	23	74	93	109	102	137	49	141	131	183	98
,, .. 5	Edinburgh (Univ. Eng. Lab.) ..	37	56	9	105	78	120	76	125	15	94	143	154	88
Ayrshire 3	Kilmarnock (Agricultural Coll.) .	49	75	44	61	126	148	132	163	56	145	169	197	119
,, ... 8	Girvan (Pinmore)	47	63	30	45	149	111	84	124	38	130	140	194	102
Renfrewshire 3	Shaws W.W. (Loch Thom)	49	52	31	41	152	112	146	134	50	155	161	212	112
Bute 1	Rothesay (Ardencraig)	58	90	47	49	121	116	113	154	55	174	154	209	118
Argyllshire 2	Loch Sunart (Glen Borrodale) ..	32	31	23	49	149	163	77	128	105	164	115	160	100
,, ... 8	Lochgilphead (Poltalloch)	52	49	33	72	180	170	100	130	75	173	142	192	116
,, ...11	Inveraray Castle Gardens	35	37	37	80	129	160	152	148	67	180	150	180	113
,, ...14	Islay (Eallabus)	56	66	27	85	160	157	112	186	64	193	160	201	126
Kinross-shire 2	Loch Leven Sluice	38	72	18	72	100	81	121	119	17	109	153	116	88
Perthshire..... 1	Loch Dhu	36	47	25	41	125	103	108	129	45	140	131	193	97
,, ... 7	Crieff (Strathearn Hydro)	44	80	18	45	108	79	117	151	29	137	125	153	96
,, ...14	Blair Atholl (Blair Castle Gdns.)	41	63	25	67	127	78	93	92	54	134	103	236	98
Angus (Forfar).... 2	Dundee (Eastern Necropolis) ...	64	102	20	68	114	109	127	97	31	108	155	136	98
,, ... 4	Montrose (Sunnyside Asylum)...	63	111	8	73	96	104	121	167	29	99	143	165	104
Aberdeenshire 1	Balmoral (Castle Gdns.).....	45	42	8	86	87	92	180	77	42	88	87	209	89
,, ... 2	Aberdeen (Kings College).....	84	84	9	94	98	108	135	102	58	107	120	203	105

Table XXIV.—*Monthly Rainfall in* 1929; *the Average,* 1881–1915, *being taken as* 100—(*con.*).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
		%	%	%	%	%	%	%	%	%	%	%	%	%
Aberdeenshire 4	New Deer Schoolhouse	105	92	23	132	95	116	90	148	72	135	95	190	111
Morayshire 2	Gordon Castle	59	38	11	104	63	118	61	87	60	110	65	145	78
,, ... 3	Grantown-on-Spey	55	16	9	131	114	91	131	133	55	145	47	98	87
Nairnshire 2	Nairn (Delnies)	15	23	18	99	146	100	80	165	81	145	57	91	87
Inverness-shire ... 3	Alvie Manse.....	25	23	19	110	111	86	145	136	79	203	111	147	103
,, ... 6	Fort Augustus (St. Benedict's) .	20	14	21	77	104	118	105	117	79	185	135	142	92
,, ... 7	Loch Quoich (Glenquoich)	27	28	41	94	102	151	103	137	116	239	117	155	107
,, ...13	Arisaig House	35	30	30	111	129	163	77	133	125	220	107	138	108
,, ...17	Fort William	21	28	27	79	135	130	122	145	81	196	124	160	101
Ross and Cromarty 4	Alness (Ardross Castle)	26	20	19	78	80	74	79	174	82	126	84	98	78
,, 7	Ullapool	30	21	47	107	62	148	81	234	143	169	82	86	98
,, 8	Loch Torridon (Bendamph)	23	19	26	75	79	125	101	121	123	173	99	132	90
,, 10	Stornoway	36	32	30	52	87	141	96	147	157	147	101	123	96
Sutherlandshire .. 1	Lairg	38	24	51	94	82	126	46	156	133	128	89	167	96
,, .. 4	Tongue	53	26	17	82	98	183	58	159	151	168	70	125	97
,, .. 5	Loch More (Achfary)	41	30	31	94	58	187	76	162	205	189	111	121	108
Caithness-shire.... 2	Wick	52	30	39	85	94	212	50	174	141	149	102	182	111
Orkney	Pomona (Deerness)	39	36	32	72	87	179	58	167	205	162	113	136	108
Co. Cork 6	Dunmanway (The Rectory)	53	169	42	51	144	71	169	104	30	97	198	183	115
,, ,, ... 7	Glanmire (Lota Lodge) No. 1 ..	56	195	34	49	169	55	168	75	29	86	168	193	113
,, ,, ... 9	Mallow (Longueville)	38	216	25	69	116	68	204	82	36	101	189	210	120
,, Kerry 3	Cahirciveen (Valentia Obsy.) ...	65	136	30	46	111	106	142	106	37	113	179	175	108
,, ,, ... 3	Gap of Dunloe (Gearhameen) ..	43	91	36	68	114	82	190	109	36	123	171	165	106
,, Waterford 3	Waterford (Brook Lodge)	67	266	37	63	156	99	107	66	54	87	182	182	117
,, Tipperary 1	Nenagh (Castle Lough)	42	103	34	52	98	57	126	148	32	166	138	191	105
,, ,, ... 3	Cahir (Abbey)	50	121	34	85	124	99	142	62	42	77	156	198	103
,, Limerick 2	Foynes (Coolnanes)	48	115	27	48	75	38	138	105	27	136	157	196	101
,, Wexford..... 4	Gorey (Courtown House)	90	220	26	36	150	93	96	80	52	95	212	230	122
,, Kilkenny 2	Kilkenny Castle.....	52	127	35	64	120	80	76	96	40	97	157	216	101
,, Carlow 2	Bagnalstown (Fenagh Ho.)	54	128	49	29	111	83	89	92	34	106	204	210	105
†,, Leix 2	Abbey Leix (Blandsfort)	60	110	34	54	109	77	106	103	24	115	140	214	100

† Formerly called Queen's County.

Table XXIV.—*Monthly Rainfall, in* 1929; *the Average,* 1881–1915, *being taken as* 100—(*con.*).

County and River Division.	Station.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
		%	%	%	%	%	%	%	%	%	%	%	%	%
§Co. Offaly 1	Birr Castle	52	141	22	42	115	73	118	131	36	140	128	198	105
,, Kildare 2	Straffan House	40	118	28	58	65	59	102	119	23	120	119	187	92
,, Dublin 3	Balbriggan (Ardgillan) No. 1 ...	84	211	21	67	85	65	65	128	16	106	142	202	104
,, Meath 4	Kells (Headfort)	57	136	26	46	97	111	102	104	36	140	135	164	100
,, Westmeath .. 1	Mullingar (Belvedere)	73	126	23	29	110	77	96	122	20	167	113	177	99
,, Louth 3	Greenore	88	169	26	51	90	69	109	133	34	111	100	158	99
,, Longford 2	Castle Forbes Gardens	75	137	18	46	81	76	147	139	41	146	139	187	108
,, Galway 3	Ballynahinch Castle	56	130	18	44	103	110	252	170	49	128	152	154	116
,, ,, ... 5	Ahascragh (Clonbrock)	51	101	25	53	74	65	145	121	33	115	132	183	97
,, Mayo 3	Blacksod Point	52	98	14	41	119	126	248	137	56	123	128	176	111
,, ,, ... 5	Delphi Lodge	61	91	18	46	96	100	210	142	45	126	134	146	104
,, Sligo 2	Collooney (Markree Observatory)	40	90	15	50	97	96	142	150	34	138	157	168	103
,, Cavan 1	Belturbet (Cloverhill)	62	114	20	35	92	107	102	144	62	186	123	160	105
,, Armagh 5	Armagh Observatory	52	102	14	40	115	73	87	153	58	204	124	188	106
,, Down 2	Seaforde	75	134	21	54	98	78	78	155	22	108	160	216	107
,, Antrim 1	Belfast (Queen's University) ...	78	148	24	35	108	92	97	121	28	129	140	206	106
,, ,, ... 5	Ballymena (Harryville)	53	100	16	64	118	105	80	153	44	183	126	160	105
,, Londonderry . 5	Londonderry (Creggan Reservoir)	34	74	27	76	94	135	110	147	68	151	124	163	104
,, ,, . 5	Limavady (Drenagh)	38	64	12	48	82	104	90	129	40	201	108	173	96
,, Tyrone 3	Omagh (Edenfel)	42	102	15	54	93	97	119	160	40	164	112	182	104
,, Donegal 3	Milford (The Manse)	33	73	14	79	71	123	115	155	57	131	112	155	97
,, ,, ... 5	Killybegs (Rockmount)	24	91	18	50	65	112	114	155	56	142	128	145	96
England .....(general mean*, 57 stations) ..		**77**	**48**	**11**	**65**	**97**	**73**	**86**	**84**	**36**	**117**	**217**	**187**	..‡
Wales .....(,, ,, 13 ,,) ..		**51**	**47**	**25**	**43**	**127**	**98**	**94**	**84**	**56**	**137**	**235**	**193**	..
England and Wales ..(,, ,, 70 ,,) ..		**72**	**48**	**14**	**61**	**102**	**78**	**87**	**84**	**40**	**121**	**220**	**188**	..
Scotland .....(,, ,, 44 ,,) ..		**47**	**49**	**25**	**78**	**110**	**120**	**105**	**141**	**71**	**146**	**122**	**163**	..
Ireland .....(,, ,, 35 ,,) ..		**55**	**130**	**25**	**52**	**105**	**87**	**128**	**123**	**39**	**130**	**145**	**183**	..
British Isles† .....(,, ,, 150 ,,) ..		**61**	**67**	**20**	**64**	**105**	**93**	**102**	**110**	**49**	**131**	**173**	**180**	..

* The "general" values given in the last six rows are obtained by taking the means of the percentage values for the stations. † Including Isle of Man. ‡ See Table XXVI.
§Formerly called King's County.

9. SEASONAL RAINFALL, 1928-1929.

There are definite advantages in considering the rainfall of the winter and summer separately. One defect of the calendar year as a

Rainfall, Winter Half-year, as per cent. of average.

unit of time for rainfall purposes is that part of a winter is included in one calendar year and the other part in another year. Winter

rainfall has a special economic importance, for, except in the wettest areas, the summer rainfall is, for the most part, lost by evaporation or absorbed by vegetation.

In this section the rainfall of the winter season, 1st October, 1928, to 31st March, 1929, and of the summer season, 1st April, 1929, to 30th September, 1929, is dealt with, as well as the rainfall of the whole

Rainfall, Summer Half-year, as per cent. of average.

seasonal year, 1st October, 1928, to 30th September, 1929. It is natural to associate a summer season with the preceding rather than with the following winter season, since the water required in summer for replenishing streams and for the needs of animal and vegetable life is derived, in

part, from that which has been naturally stored during the previous winter season. One section of *British Rainfall* has been devoted to this subject since the volume for 1908, and three maps and Table XXV similar to those introduced in that volume, are now reproduced.

Rainfall, Seasonal Year, as per cent. of average.

Table XXV contains rainfall values for each of these two seasons for the stations shown in Section 8 on Monthly Rainfall. The values are expressed as percentages of the average fall for the season and the station. The table gives in the fourth column the corresponding percentages for each station for the whole of the seasonal year. These last figures are not always the mean of the percentages for the two seasons, but often show a bias towards the winter value rather than

that of the summer. This is due to the fact that the average rainfall for the winter is, in general, greater than that for the summer.

The *winter* half-year contained only two wet months, October and November, 1928. The large excesses which occurred during these two months were wiped off by the end of February, 1929, and the very dry March, 1929, gave a deficiency of 8 per cent. over the British Isles as a whole during the winter. The map shows that more than the average rainfall occurred over most of the south-eastern half of Ireland, the south-west of Scotland, and the south-west of Wales and along the south coast of England. There was over 130 per cent. in the extreme south-east of Ireland. Falls of less than 80 per cent. were confined in Ireland to the extreme north of Co. Londonderry, they were fairly widespread in England and Wales (notably in the Thames Valley and in the north-east of England), while they occurred over most of the northern half as well as in the south-east of Scotland. The winter was unusually dry in the north of Scotland, where large areas received less than 70 per cent. The range in Table XXV is from 138 per cent. at Gorey (Courtown House) in Co. Wexford to 62 per cent. at Grantown-on-Spey.

The run of dry months which commenced in December, 1928, may be considered as continuing during the *summer*, for the excesses in May and August were quite small and did little to alleviate the droughty conditions which prevailed over the country generally in the earlier months of the year. April and September, 1929, were, however, the only months during the summer with large deficiencies. The general deficiency over the British Isles during the summer of 1929 amounted to 12 per cent., and in England and Wales to as much as 24 per cent. There was an excess in Scotland of 6 per cent. and a deficiency in Ireland of 8 per cent. The rainfall of the summer was less than the average over the whole of England and Wales, except the English Lake District and part of Merionethshire, where there were small excesses. There was less than 60 per cent. over a large area stretching from the Wash as far inland as Swindon and Wakefield, and less than 50 per cent. in parts of Berkshire. The percentage values were 80 per cent. or more everywhere in Scotland and exceeded 120 per cent. over parts of the north-west. In Ireland there were large areas with less than 80 per cent. in the neighbourhood of Limerick and from Carlow to Dublin, while more than 120 per cent. occurred in parts of Connemara. The range in Table XXV is from 133 per cent. at Ullapool, in the North of Scotland, to 47 per cent. at Oxford.

The map for the *seasonal year* necessarily shows characteristics similar to those of the seasonal maps. Thus there are excesses along the south-east coasts of Ireland and part of the south coast of England both on the map for the year and for the winter. The large deficiencies of 30–35 per cent. for the seasonal year in Nottinghamshire and the

neighbourhood of Oxford are the result of deficiencies in both the winter and summer. The map for the year also shows that in the northern half of Scotland the deficiencies, a feature of the winter, were more marked than the excesses which occurred there during the summer. The range in Table XXV is from 123 per cent. at Islay (Eallabus) to 64 per cent. at Oxford.

In *British Rainfall*, 1927, p. 125, a table was reproduced of the serial general values of seasonal rainfall for the British Isles from 1881 to 1927. A comparison of the general values for 1929 indicates that the winter 1928–1929 was the driest since 1922–1923, and the summer and seasonal year as a whole since 1921. It will be recalled that since about 1907 wet years have predominated. Initially the excesses were mainly due to wet winters, of more recent years the summers were particularly wet, while in 1928 and 1929 there was a reversion to the earlier type. In the series back to 1881, *i.e.*, in 48 years, there have been only six drier seasonal years, viz., 1886–1887, 1892–1893, 1897–1898, 1904–1905, 1908–1909, 1920–1921, with 89, 85, 87, 84, 88, 82 per cent. respectively.

In *British Rainfall*, 1926, p. 125, values are given for England and Wales, Scotland and Ireland separately back to 1906–1907. This table shows that the summer of 1929 over England and Wales was drier than any other summer there, with the one exception of that of 1921 with 66 per cent., and further that very nearly half as much rain fell in the summer of 1929 as in that of 1927 or 1924 with 145 and 147 per cent. respectively. In Scotland, the summer of 1929 was the eighth consecutive wet summer, and the accumulated rainfall during these eight years amounts to as much rain as usually falls in nine and a third years. Recent winters in Ireland are also remarkable, for during the last 18 years, *i.e.*, since the winter of 1911 to 1912, there has been an excess in practically every winter, so that the accumulated rainfall amounts to as much rain as usually falls in nineteen and a half years.

Table XXV.—*Seasonal Rainfall, 1928-29, in relation to the Average, 1881-1915.*

Station.‡	Winter 6 Months, Oct. 1928–Mar. 1929. Per cent. of Average.	Summer 6 Months, Apl. 1929–Sept. 1929. Per cent. of Average.	Twelve Months Oct. 1928–Sept. 1929. Per cent. of Average.	Station.‡	Winter 6 Months, Oct. 1928–Mar. 1929. Per cent. of Average.	Summer 6 Months, Apl. 1929–Sept. 1929. Per cent. of Average.	Twelve Months, Oct. 1928–Sept. 1929 Per cent. of Average.
St. Pancras (Camden Square) ..	77	73	75	St. Austell (Trevarna)	98	82	92
Tenterden (Ashenden)	96	71	85	Chewton Mendip (The Priory) ..	80	67	75
St. Peter's.....	118	58	91	Cirencester (Gwynfa)	85	65	76
Edenbridge (Falconhurst)	89	77	84	Church Stretton (Wolstaston) ..	89	86	87
Compton (Compton House)	102	75	91	Market Drayton (Old Springs) ..	89	75	82
Brighton W.W. (Lewes Road) ..	112	91	103	Malvern (Free Library)	86	65	76
Ventnor (Royal National Hosp.).	115	82	102	Farnborough	93	73	83
Fordingbridge (Oaklands)	81	64	74	Birmingham (Edgbaston)	91	70	81
Sherborne St. John	79	49	66	Belvoir Castle Gardens	74	61	68
Royston (Therfield Rectory)	79	66	72	Boston (Black Sluice, Skirbeck)	103	58	81
Slough (Upton)	82	62	73	Lincoln (Skellingthorpe Hall)..	87	53	70
Oxford (Magdalen College)	80	47	64	Derby (L.M.&S. Rly.)	87	69	78
Pitsford (Sedgebrook).....	95	69	82	Manchester (Whitworth Park) ..	88	88	88
March	90	56	73	Stonyhurst College	84	97	90
Chelmsford (County Laboratory)	88	75	82	Southport (Hesketh Park)	104	82	94
Hawkedon Rectory.....	86	67	77	Ulverston (Poaka Beck).....	93	103	98
Rendlesham Hall.....	82	79	80	Rotherham (Moorgate Grange)..	79	56	68
Lowestoft (Belle Vue Park).....	76	57	67	Bradford (Lister Park)	94	60	79
Norwich (Eaton)	94	67	76	York (Cherry Hill)	90	59	75
Little Dunham (Dunham Cot.)..	93	64	79	Hull (Pearson Park)	93	66	80
Calne (High Street).....	91	65	79	Leyburn (Bolton Hall)	79	80	79
Weymouth (Weymouth House)...	95	72	86	Felixkirk (Mount St. John)	88	81	85
Launceston (Polapit Tamar) ...	88	94	91	Scarborough	79	70	75
Ashburton (Druid House)	104	74	93	Middlesbrough (Albert Park) ..	78	83	80
Cullompton	82	80	81	Newcastle (Town Moor)	78	67	73
Barnstaple (N. Dev. Athenæum)	98	82	92	Hallington (Fawcett)	80	89	84
Penzance (Morrab Gardens)	92	94	93	Ilderton (Lilburn Tower Gdns.).	83	93	88

‡ For Counties see Table XXIV, pp. 125-129.

Table XXV.—*Seasonal Rainfall*, 1928–29, *in relation to the Average*, 1881–1915—(*con.*).

Station.‡	Winter 6 Months, Oct. 1928–Mar. 1929. Per cent. of Average.	Summer 6 Months, Apl. 1929–Sept. 1929. Per cent. of Average.	Twelve Months, Oct. 1928–Sept. 1929. Per cent. of Average.	Station.‡	Winter 6 Months, Oct. 1928–Mar. 1929. Per cent. of Average.	Summer 6 Months, Apl. 1929–Sept. 1929. Per cent. of Average.	Twelve Months, Oct. 1928–Sept. 1929. Per cent. of Average.
Carlisle (Scaleby)	80	100	90	Girvan (Pinmore)	97	92	95
Borrowdale (Seathwaite)	88	107	95	Shaws W.W. (Loch Thom)	98	106	102
Appleby (Castle Bank)	74	102	86	Rothesay (Ardencraig)	127	104	117
Abergavenny (Larchfield)	89	73	82	Loch Sunart (Glen Borrodale)	82	109	93
Cardiff (Ely Pumping Station)	110	87	100	Lochgilphead (Poltalloch)	98	118	107
Glyncorrwg Colliery	89	68	80	Inveraray Castle Gardens	96	120	106
Carmarthen (The Friary)	107	77	95	Islay (Eallabus)	122	126	123
Haverfordwest (Grammar Sch.)	120	83	106	Loch Leven Sluice	84	89	86
Birmingham W.W. (Tyrmynydd)	77	78	78	Loch Dhu	87	92	89
Llangurig (Dernol)	72	70	71	Crieff (Strathearn Hydro)	90	95	92
Lake Vyrnwy (Bank Cynon Isaf)	97	89	94	Blair Atholl (Blair Castle Gdns.)	95	85	91
Northop (Soughton Hall)	84	89	86	Dundee (Eastern Necropolis)	95	94	94
Dolgelly (Bryntirion)	89	111	98	Montrose (Sunnyside Asylum)	87	104	95
Llandudno	74	86	80	Balmoral Castle Gardens	66	94	78
Llandwrog (Glynllivon Park)	90	85	88	Aberdeen (King's College)	84	101	92
Holyhead (Salt Island)	106	82	95	New Deer Schoolhouse	94	108	100
Douglas (Borough Cemetery)	116	86	104	Gordon Castle	67	80	73
Stoneykirk (Ardwell House)	122	102	113	Grantown-on-Spey	62	111	86
Dalry (Glendarroch)	98	92	96	Nairn (Delnies)	68	112	90
Auchencairn (Torr House)	116	99	109	Alvie Manse	84	114	98
Dumfries (Crichton Roy. Inst.)	97	96	97	Fort Augustus (St. Benedict's)	75	99	84
Hawick (Wolfelee)	72	98	83	Loch Quoich (Glenquoich)	79	117	93
Stobo Castle	73	91	81	Arisaig House	81	121	98
Marchmont House	81	91	86	Fort William	72	114	88
North Berwick Reservoir	76	101	89	Alness (Ardross Castle)	73	96	83
West Calder (Addiewell)	75	97	85	Ullapool	65	133	92
Edinburgh (Univ. Engin. Lab.)	73	89	81	Loch Torridon (Bendamph)	71	105	84
Kilmarnock (Agricultural Coll.)	102	118	109				

‡ For Counties see Table XXIV, pp. 125-129.

Table XXV.—*Seasonal Rainfall, 1928–29, in relation to the Average, 1881–1915—(con.).*

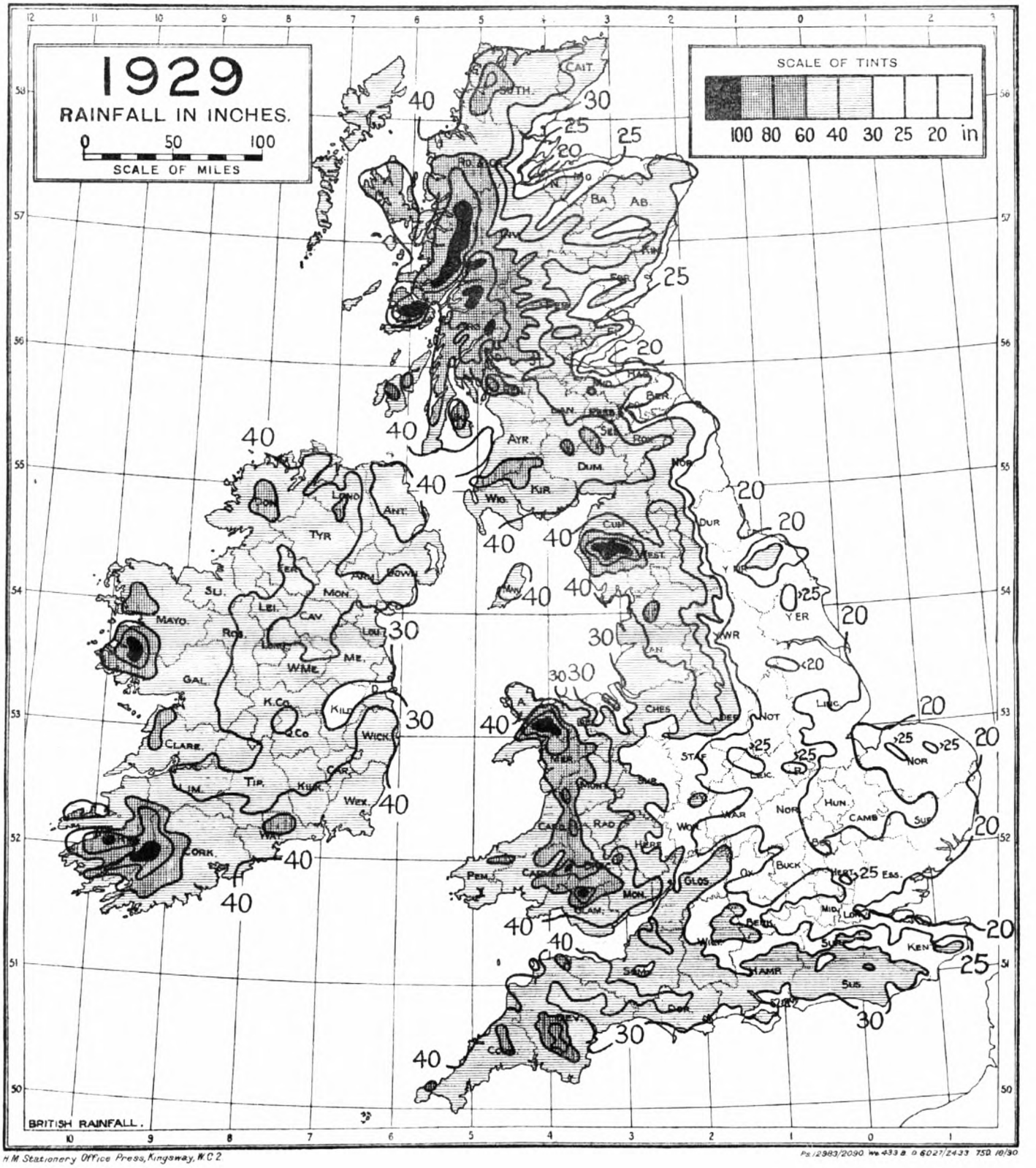
Station.‡	Winter 6 Months, Oct. 1928–Mar. 1929. Per cent. of Average.	Summer 6 Months, Apl. 1929–Sept. 1929. Per cent. of Average.	Twelve Months, Oct. 1928–Sept. 1929. Per cent. of Average.
Stornoway	71	117	88
Lairg	84	106	94
Tongue	65	123	87
Loch More (Achfary)	77	132	98
Wick	83	124	102
Pomona (Deerness)	73	132	96
Dunmanway (The Rectory)	109	93	103
Glanmire (Lota Lodge) No. 1	120	89	107
Mallow (Longueville)	112	96	105
Cahirciveen (Valentia Obsy.)	107	91	100
Gap of Dunloe (Gearhameen)	98	100	99
Waterford (Brook Lodge)	134	88	114
Nenagh (Castle Lough)	108	91	100
Cahir (Abbey)	101	91	97
Foynes (Coolnanes)	106	76	93
Gorey (Courtown House)	138	84	114
Kilkenny Castle	104	81	93
Bagnalstown (Fenagh Ho.)	100	76	89
Abbey Leix (Blandsfort)	97	81	89
Birr Castle	108	92	100
Straffan House	94	77	86
Balbriggan (Ardgillan) No. 1	123	76	100
Kells (Headfort)	109	85	98
Mullingar (Belvedere)	108	81	95
Greenore	116	86	101
Castle Forbes Gardens	102	94	98
Ballynahinch Castle	109	125	116
Ahascragh (Clonbrock)	97	87	92
Blacksod Point	101	121	109
Delphi Lodge	98	109	102
Collooney (Markree Observatory)	97	99	94
Belturbet (Cloverhill)	90	95	92
Armagh Observatory	97	93	95
Seaforde	116	85	101
Belfast (Queen's University)	119	84	102
Ballymena (Harryville)	96	98	97
Londonderry (Creggan Reservoir)	92	109	100
Limavady (Drenagh)	78	86	82
Omagh (Edenfel)	90	100	94
Milford (The Manse)	85	104	93
Killybegs (Rockmount)	87	96	91
General Values.* **England**	**89**	**74**	**82**
Wales	**92**	**83**	**89**
England and Wales	**89**	**76**	**83**
Scotland	**85**	**106**	**94**
Ireland	**104**	**92**	**98**
British Isles†	**92**	**88**	**90**

* Obtained by taking the means of the percentage values for the stations. † Including Isle of Man. ‡ For Counties see Table XXIV, pp. 125-129.

10. THE TOTAL FALL OF RAIN IN 1929 AND ITS RELATION TO THE AVERAGE.

The total rainfall for the year is given for over 5,000 stations in the British Isles in the General Table, Part III of this volume. As many of these totals as practicable have been plotted on a map on the scale of 19 miles to the inch. In the districts of relatively few rainfall stations, each record has been plotted, while in the more thickly represented areas some have had to be omitted. Isohyetal lines, or lines of equal rainfall amount, have been drawn, giving a cartographical presentation of the distribution of the rainfall of the year over the land. The map is reproduced on a smaller scale as the folding plate opposite this page. Such a map is dominated by the orography of the country to such an extent that not only is it complicated in itself, but it also closely resembles its predecessors, the differences being noticeable only after detailed examination and comparison. The characteristics of a particular year are brought out better by a map such as that opposite p. 140, in which the percentage ratio of the rainfall for the year to the average is shown. It has been coloured so that blue areas represent regions where the fall in 1929 was more than the average, and red areas represent regions where the fall in 1929 was less than the average. The statistics on which the latter map is based are set out in Tables XXIV and XXVII.

The percentage map for 1929 shows by means of continuous lines the places where the values of the rainfall were, respectively, 80, 90, 100, 110, 120 and 130 per cent. of the average values. Areas with a rainfall below the average occurred mainly, but by no means exclusively, in the eastern half of the United Kingdom. Thus, less than the average occurred practically everywhere to the east of a line from Dungeness to Salisbury and thence northward, up the centre of England and Wales, through Birmingham, Kirkby Stephen, Kelso, Stirling and Blair Atholl. This type of rainfall distribution is associated usually with an increased pressure gradient from the north-west to the south-east of the British Isles. The difference between the mean annual pressure at Dungeness and at Stornoway is about 6 mb., but in 1929 it amounted to nearly 8 mb. There was less than 80 per cent. in the neighbourhood of Huntingdon, along part of the east coast of Linconshire and Yorkshire, near Newcastle, as well as in the neighbourhood of the Moray Firth. In the regions in England enumerated above, each of the eight months, February to September, was dry. In the Moray Firth the only wet months of the year were August and October, the heavy rains of November and December, which were general elsewhere, failing in this area. On the other hand, more than 120 per cent. was recorded in Dartmoor and in northern Cornwall, near Merthyr Tydfil,



H.M. Stationery Office Press, Kingsway, W.C.2.

[face page 138.]

Haverfordwest and Blaenau Festiniog in Wales, near Ayr and in Islay in Western Scotland, and near Mallow and Waterford in the south of Ireland. As much as 130 per cent. was recorded in the neighbourhood of Dartmoor and in south-eastern Ireland. The large falls in these regions were due especially to the heavy rains of May, November and December, as well as to those of February in the south-east of Ireland, and of October in the Devon-Cornwall peninsula.

The actual percentage values given in Tables XXIV and XXVII varied from 72 at Stretham Engine in Cambridgeshire, 73 at Oundle in Northamptonshire, and also at Newcastle, to 126 at Launceston, 126 at Islay (Eallabus) and 130 at Foulkesmill (Longraigue) in Co. Wexford.

Use is made of the percentage values at the 271 stations of both Tables XXIV and XXVII to derive general values of the total rainfall for the year over the British Isles and over the larger divisions separately. These values are set out in the following table.

TABLE XXVI.—*General Rainfall, 1929, compared with average.*

Countries.	No. of Stations.	Average 35 years 1881-1915.	1929	
			Per cent.	Rainfall.
		in.		in.
England	136	32·67	98	32·0
Wales	24	50·14	109	54·7
England and Wales	160	35·23	100	35·2
Scotland	62	50·32	101	50·8
Ireland	48	43·30	106	45·9
British Isles†	271	41·41	101	41·8

† Including Isle of Man.

For the British Isles, as a whole, the rainfall of 1929 was close to the average, being only 1 per cent. in excess. There was a deficiency of 2 per cent. in England, and excesses in Wales, Scotland and Ireland of 9, 1 and 6 per cent. respectively. The rainfall over the British Isles, as a whole, has been in excess of the average for the period 1881 to 1915 in each of the last seven years, although in 1929 the excess was smaller than in any of the preceding six years. Over England and Wales the preceding seven years were all wetter. Over Scotland the previous three years and over Ireland the last two years were wetter than 1929. 1929 will be remembered, therefore, as a year in which the annual totals in most parts of the British Isles closely approximated to the average; they were rather smaller than the average in the east of the United Kingdom, and slightly in excess of the average in the west, and more especially in Ireland.

The general distribution of the actual rainfall, as shown on the folding plate, is similar to that for other years. The total for the year was less than 20 inches in the neighbourhood of the Thames Estuary, in the Fen District (stretching as far south as Cambridge and Bedford and as far north as Lincoln), to the east of Doncaster, near Middlesbrough and along the Firth of Forth. More than 100 inches was recorded in Dartmoor, in South Wales, in the English Lake District, in Snowdonia over small areas in the Western Highlands of Scotland and locally in the mountains of Kerry and Connemara.

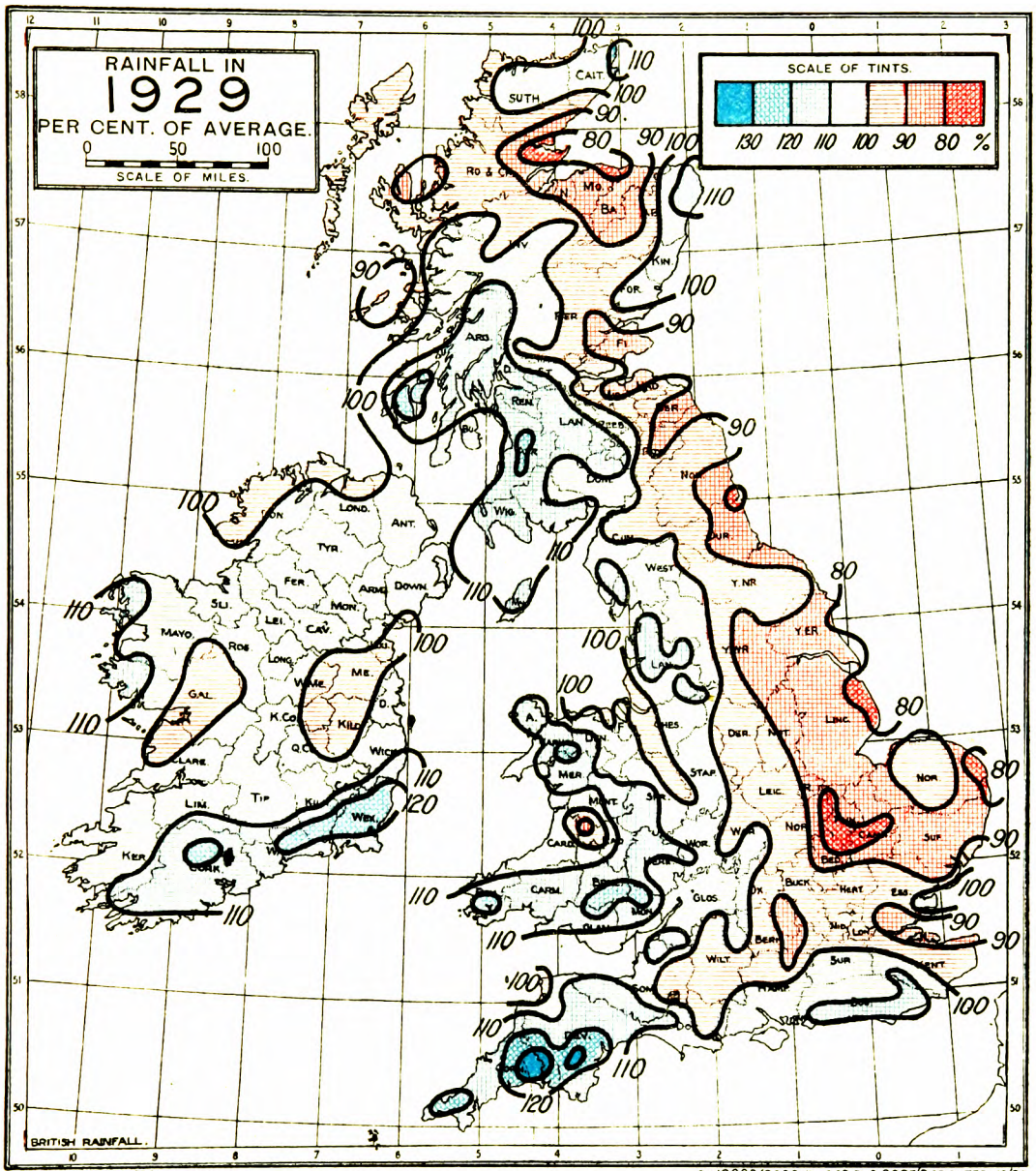
Among the largest totals reported for the year and set out in the General Table, Part III, the following may be mentioned :—

		Inches.
England ..	Cumberland, Borrowdale (The Stye) ..	170·39
Wales ..	Carnarvon, Snowdon (Crib Goch)	173·69
	,, ,, (Delta)	171·50
Scotland ..	Argyll, Mull (Benmore)	131·00
	Invernessshire, Loch Quoich (Glenquoich) ..	118·46
Ireland ..	Kerry, Kilgarvan (Inchimore)	113·96
	Mayo, Aasleagh House	101·71

Some of the smallest totals for the year are set out below :—

		Inches.
England ..	Cambridge, Stretham Engine	15·19
	Northants, Oundle School	15·33
	Essex, Shoeburyness (New Ranges) ..	15·53
Scotland ..	Haddington, Dirleton	19·16
	Ross and Cromarty, Fortrose	19·68
	Fife, Inchkeith	19·88

RELATION OF RAINFALL IN 1929 TO THE AVERAGE OF 1881–1915.



The area coloured Red had rainfall below the average, that coloured Blue had rainfall above the average.

Table XXVII.—*Rainfall of* 1929 *as Percentage of Average,* 1885-1915.*

County.	Station.	Per cent. of Average.	County.	Station.	Per cent. of Average.
	ENGLAND.		YorksW.R.	Wakefield (Clarence Park) ...	89
Surrey ...	Reigate (Alvington)	106	,,	Skipton (Chelker Res.)	101
Kent.....	Folkestone (Cherry Gardens) .	94	,, E.R.	Spurn Head	78
,, ...	Rochester (Knights Place)....	89	,,	Patrington	88
Sussex ...	Patching Farm	114	,,	Lowthorpe (The Elms)	78
,, ...	Horsham (Wimblehurst) ...	106	,, N.R.	Malton (Broughton Rise)	95
,, ...	St. Leonards (Gensing Gardens)	111	,,	Guisborough (Lockwood Res.)	87
Hampshire	Totland Bay (Aston House) ..	107	Durham ..	Barnard Castle (County Schl.)	85
,,	Portsmouth (Victoria Park) ..	101	,, ..	Ushaw (St. Cuthbert's College)	84
,,	Grayshott	107	North'ld...	Morpeth (Cockle Park)	87
Berkshire .	Wellington College	77	,, ..	Howick Hall	100
,, .	Newbury (Greenham Common)	97	Cumberl'd.	Penrith (Briar Cottage)	91
Hertford .	Harpenden (Rothamsted)	96	,,	Keswick (Derwent Is.).....	100
Oxford ...	Leafield (Wireless Station)....	100	,,	Ravenglass (The Grove).....	113
N'hants...	Wellingborough (Swanspool)..	87	Westmorl'd	Kirkby Stephen (Eden Place)..	97
,, ..	Oundle (Milton Road)	73	,,	Grasmere (The Wray)	106
Bedford...	Woburn (Crawley Mill)	90		**WALES.**	
Cambridge	Stretham Engine	72	Monmouth	Tredegar	111
Essex.....	Elsenham (Gaunts End)	96	Glamorgan	Gorseinon (Penllergaer)	114
, ...	Shoeburyness (New Ranges) ..	82	Carmarth'n	Llanwrda (Dolaucothy)	110
,, ...	Bradwell-on-Sea	104	Pembroke	Pembroke (Stackpole Court) .	118
,, ...	Earls Colne (Chalkney Ho.)...	87	,,	St. Ann's Head	118
Suffolk ...	BurySt.Edmunds(Westley Ho.)	85	,,	Fishguard(Langton,Dwrbach)	102
Norfolk...	Cromer	84	Montgom'y	Newtown (Penarth Weir)	114
,, ...	Wells (Holkham Hall)	98	Denbigh ..	Wrexham (Pack Saddle Res.)	100
Wiltshire..	Landford (Northlands)	106	,, ..	Denbigh (Garn)	97
,, ..	Marlborough College	104	Merioneth	Corwen (Rûg Gardens)	103
Dorset ...	Bere Regis (Bloxworth House)	97	Anglesey .	Llanerchymedd (Llwydiarth Esgob)	113
,, ...	Beaminster (Hamilton Lodge).	113		**SCOTLAND.**	
Devon S...	Plymouth (The Hoe)	124	Dumfries..	Langholm (Ewes)	98
,, ..	Sidmouth (Sidmount)	118	Roxburgh	Kelso (Springwood Park).....	81
,, N...	Okehampton (Uplands)	116	Midlothian	Moorfoot Hills (Gladhouse R.)	94
,, ..	Torrington (Enfield)	104	Ayr	Maybole(Culzean Castle Gdns.)	122
Cornwall ..	Newquay (Mount Wise)	117	Renfrew ..	Paisley W.W. (Backthornley-muir).	118
,, ..	Falmouth Observatory.....	116	,, ..	Glasgow (Queen's Park).....	112
,, ..	Tresco Abbey.....	120	Argyll	Corran Lighthouse	110
Somerset ..	Chew Magna	106	,, ...	Mull of Kintvre	101
,, ..	Batheaston Reservoir	112	,, ...	Lock Eck (Benmore)	114
,, ..	Street (Millfield)	99	,, ...	Lismore (Mousedale)	108
,, ..	Milverton (Spring Grove).....	115	Perth	Glengyle	101
Gloucester	Cheltenham (Montpellier Gns.)	103	,, ...	Perth (Wellshill Cemetery) ...	83
Hereford ..	Hereford (Belmont Abbey) ...	103	,, ...	Glen Garry (Dalnaspidal Ho.)	101
,, ..	Leominster (Fairholme).....	110	Angus	Kirriemuir (Lintrathen)	98
Shropshire	Shifnal (Hatton Grange)	95	Aberdeen .	Ellon (Esslemont House)	117
Stafford...	Leek (Wall Grange)	100	Banff	Keith Station.....	84
Worcester .	Stourport (Lincombe Lock)...	101	Inverness .	Loch Ness (Foyers)	97
Warwick .	Stratford-on-Avon (Avonfield)	101	Ross	Strathpeffer	90
,, .	Ryton-on-Dunsmore(RytonHo)	106		**IRELAND.**	
Leicester .	Kibworth Beauchamp	98	Cork	Cork (University College)	116
,, .	Thornton Reservoir	99	,, ...	Roches Point	112
Lincoln ...	Spalding (Pode Hole)	89	Kerry	Darrynane Abbey.....	107
,, ...	Skegness	76	Wexford ..	Foulkesmill (Longraigue)	130
,, ...	Louth (Westgate)	74	Carlow....	Carlow (Browne's Hill)	100
Nottingh'm	Nottingham (Strelley)	91	,, .	Hacketstown Rectory.....	103
,,	Worksop (Hodsock Priory) ...	87	Dublin....	Dublin (Phœnix Park)	103
Derby	Buxton (Devonshire Hosp.) ..	97	W'meath. .	Athlone (Twyford House)	103
Cheshire ..	Runcorn (Weston Point).....	96	Roscomm'n	Strokestown (Castlenode)	107
,, ..	Woodhead Reservoir	101	Mayo	Aasleagh House	117
Lancs. C...	Burnley (Swindon) *Lower g.* ..	105	Armagh ..	Lurgan (Belle Vue)	101
,, ..	Wigan W.W. (Worthington) ..	109	Down	Newry (Bridge Street House)	106
,, ..	Blackpool (Met. Observatory).	102	,, ...	Donaghadee (Coastguard Stn).	113
,, ..	Garstang (Grisedale Res.)	115			
YorksW.R.	Slaidburn (Dunsop Houses) ..	106			
,,	Goole	87			

* See also Table XXIV, pp. 125-129.

II.—EVAPORATION AND PERCOLATION IN 1929.

The *evaporation gauges* in use are square tanks sunk in the ground, and the evaporation which is measured is that from a free water surface. The standard gauge at Camden Square is 6 ft. square and 2 ft. deep, and is sunk so that the lip projects about 3 inches. The routine consists of the daily measurement of the level of the water below a mark fixed to the tank. From the difference between consecutive daily measurements is deducted the rainfall for the same period as measured in an adjacent rain-gauge. The net depression of the water-level in the tank during the interval of 24 hours is taken to be a measure of the evaporation. Sometimes in winter the " evaporation " comes out as a small negative quantity ; this is regarded as due to the condensation of water from the superincumbent air, and the corresponding measurements are marked " c " in the tables. So far as is practicable, the level of the water is kept about 2 to 3 inches below the top of the lip. This necessitates water being added in summer and syphoned off in winter. During the winter months, there is some difficulty in getting a reading when the water freezes. In such cases the ice is broken away from the sides of the tank and the measurement of the water-level is made while the ice is floating. If this cannot be done any morning, owing to the thickness of the ice, a measurement is made as soon as possible (on a subsequent morning), and the amount of evaporation calculated over the whole period. The evaporation is small in winter, so that little information is lost by adopting this procedure.

The accuracy of the measurements of evaporation depend on the depth of water caught as rain in the evaporation tank being identical with that measured directly in the rain-gauge alongside. Some of the factors which are likely to vitiate the measurements of evaporation were discussed in *British Rainfall*, 1925, pp. 127–128.

The list of stations given in Table XXVIII, for which details of the evaporation are available for 1929, is the same as last year. Two evaporation tanks are being maintained by the Engineer, Cardiff Water Works at Llanishen Reservoir, near Cardiff, and at Cantref Reservoir in the mountains some 17 miles to the north-west. It is hoped to be able to include data from these in the next volume.

The evaporation from a free water surface at each station shows a well-marked seasonal variation. The amount is large in the six summer months, April to September, and much smaller in the remaining months of the year. During 1929 most stations recorded more evaporation than usual, this being associated with the sunny character of the year.

The monthly and annual means for the twelve stations are set out in the last column of the table. For the year the mean evaporation

is 17·8 inches. The corresponding values in 1926, 1927 and 1928 were 16·2, 15·5 and 17·0 inches, so that the mean evaporation in 1929 was appreciably more than that in any of the last 3 years. As much as 15·2 inches or 85 per cent. of the total was evaporated in the six summer months. There is a fairly uniform change from a maximum in June and July to a minimum in December and January.

The evaporation from a free water surface during 1929 was greatest in July at 7 and in June at 5 stations, while at Talla Water, near St. Mary's Loch, the evaporation was identical in May and June. There was no marked difference between the evaporation of the first part of the year, which was dry and cold and that of the last part of the year which was unusually wet and stormy.

The monthly evaporation values for the 45 years, 1885 to 1929, at Camden Square (London) are set out in Table XXVII. For 1929 the evaporation of 16·91 inches was 1·41 inches more than the average for the 35 years (1885–1919). During the 45 years there have been only 7 years with a larger evaporation, viz., 1893, 1899, 1900, 1901, 1906, 1911 and 1921. In three of these years, viz., 1906, 1911 and 1921 the evaporation at Camden Square was much larger than in 1929, being 19·03, 19·53 and 19·69 inches respectively. The year 1929 was the second consecutive year in which the evaporation was in excess of the average. Previously there were 6 consecutive years with an evaporation less than the average amount. The excess of evaporation in 1929 was most marked in July and September, being ·45 inch and ·43 inch in these months.

In Table XXIX the amount of water which percolates through a definite depth of soil is given. Details of the percolation gauges and the type of soil are set out in the footnotes and in *British Rainfall*, 1924, p. 128. The difference between percolation and rainfall is largely to be accounted for by evaporation, but evaporation as determined in this way (known as " calculated evaporation ") is not strictly comparable with that given in the earlier table. There is no free water surface present in the percolation gauge, but during dry periods the surface soil is nearly dry, so that practically no evaporation can take place.

At Compton no rain percolated through the gauge (which consists of 10 inches of soil, on which grass is grown, over 2 feet of well rammed chalk) from the 23rd May to the 10th November (inclusive). At Grayshott there was no percolation at all during the four months June to September, while at Harrogate the percolation for the eight months March to October only amounted to ·77 inch. The main feature of each of the records is the slight percolation during the four months June to September, and the small percolation in October in spite of the heavy rain during that month.

The stations with percolation gauges in operation during 1929 are the same as in 1928. Unfortunately the record from Grayshott ceases

with that for 1929, as the gauge has fallen into disrepair. It is opportune, therefore, to include the following note from Mr. S. E. Ashmore about the percolation records which Mrs. Lyndon has maintained for so many years :—

> "The record of percolation to a depth of 3 feet in natural soil at Grayshott extends from January, 1904, to December, 1929, giving a period of 26 years. The height above sea level is 661 feet and the soil in the neighbourhood is very light and sandy, the vegetation being chiefly heather, gorse, fir, whortleberry and bracken. The mean annual rainfall for this period is 36·94 inches, and the corresponding run-off 23·84 inches. This gives a percentage percolation of 64·5. The highest annual percentage was 75·7 in 1923 and the lowest 32·0 in 1921. In this latter year only 5·69 inches percolated to a depth of 3 feet. The longest period in which no water percolated was from May 23rd, 1921, to January 1st, 1922, which is 223 days. By employing annual values of rainfall and run off, a correlation coefficient of +0·993 was obtained.
>
> "Evaporation cannot be determined by using monthly values of rainfall and percolation, as in summer evaporation exceeds the rainfall and in winter the percolation is sometimes greater than the rainfall. This latter effect is due to the water already present in the soil being carried through, and sometimes to a large run off being measured at the beginning of a month as the result of heavy rain at the end of the previous month. The greatest 'calculated evaporation' in any one year of the period concerned is 15·96 inches in 1906 and the smallest 9·23 inches in 1923. The mean value for 26 years is 13·10 inches. Unfortunately no evaporimeter observations have been made at Grayshott for comparison."

The percolation gauges at Rothamsted and Craibstone require special comment. At Rothamsted practically the same quantity of rain which passes through the 20-inch gauge is recorded in the 60-inch gauge. This is in accord with the records of earlier years. It is reasonable to conclude therefore that the 20-inch gauge at Rothamsted is of sufficient depth to give a good indication of the water likely to go into "permanent storage."

A comparison of the two sets of observations indicates that while the rainfall at Craibstone was 11 inches greater than that at Rothamsted, the measured percolation was only 1or 2 inches greater in the former case. Again during the four months June to September there was very little percolation at either Craibstone or Rothamsted although the rainfall at the two stations was 10·5 and 3·1 inches respectively. It is apparent therefore that these months could have been appreciably wetter without there being any percolation at Rothamsted. This accounts for the large difference in the calculated evaporation as reported from Craibstone and Rothamsted.

At Craibstone the percolation was 1·62 inches less through the gauge in which the ground was manured and limed than through that which was unmanured. In most years (and in fact during most months of 1929) the percolation is less through the manured than through the unmanured gauge and still less through the gauge which is both limed and manured. It is presumed that this is due to the effect of the greater growth arising from treatment of the soil in the latter cases.

Table XXVIII—*Evaporation in* 1929.

List of Stations.	County.	Observer.	Particulars of Tank. Height above Ground.	Height above Sea Level.	Side.	Capacity
			ft. in.	ft.	ft. in.	Gals.
Camden Square	London 2	Royal Meteor. Soc. ..	0 3	111	6 0	450
Otterbourne ..	Hampshire 5	E. C. Rodda, Esq. ..	0 3	112	6 0	450
Petersfield	,, ...6	C. J. P. Cave, Esq. ..	0 3	747	4 0	250
Ormesby St. M.	Norfolk 2	Gt. Yarmouth W.W.	0 3	21	6 0	450
Kennick	South Devon 5	S. C. Chapman, Esq.	0 3	835	6 0	450
Revesby	Lincoln 3	T. Henry Tyson, Esq.	0 6	124	6 0	450
Southport	Cen. Lancashire..3	J. Baxendell, Esq. ..	0 3	37	3 0	112
Ardsley, No. 1	Yorkshire, W.R. 8	C. C. Smith, Esq. ..	0 3	395	6 0	450
,, No. 2	,, ,, 8	,,	0 3	326	6 0	450
Lower Laithe..	,, ,, 9	M. R. Barnett, Esq...	0 6	772	6 0	450
Harrogate	,, ,, 11	A. S. West, Esq.	0 3	589	6 0	450
Talla Water ..	Peebles 1	Messrs. Leslie & Reid	0 3	904	6 0	450
Edinburgh	Midlothian 5	Sir T. Hudson Beare	0 3	227	4 0	200

1929.	Camden Square.	Otterbourne.	Petersfield.	Ormesby St. Michael.	Kennick.	Revesby.	Southport.
	in.	in.	in.	in.	in.	in.	in.
January.....	·20	·00	·30	·24	·05	·02	·02
February.....	·29	·12	·30	·00	·93	·10	·35
March	·64	1·58	·89	·56	1·12	·70	·64
April	1·53	2·29	1·66	1·71	2·26	1·30	1·84
May	2·66	3·54	2·82	2·53	2·91	2·61	2·65
June.....	2·93	3·16	2·83	2·61	3·64	2·25	3·70
July	3·42	3·94	3·41	3·02	3·86	3·02	2·98
August.....	2·22	2·82	2·44	2·28	2·87	1·86	2·25
September.....	1·81	2·45	2·34	1·76	2·43	1·88	1·55
October	·80	1·05	1·00	·73	1·04	1·01	·72
November	·27	c ·05	·45	·45	·30	·48	·15
December	·14	·19	·28	·26	·18	·76	·25
Year.....	16·91	21·09	18·72	16·15	21·59	15·99	17·10
Average, 1908–1929	15·23	19·61	..	..	18·83	14·72	..
Difference	+1·68	+1·48	..	..	+2·76	+1·27	..

1929.	Ardsley. No. 1.	Ardsley. No. 2.	Lower Laithe.	Harrogate.	Talla Water.	Edinburgh	Mean of 12 Records*
	in.	in.	in.	in.	in.	in.	in.
January.....	·09	·04	·35	·23	·01	·23	·13
February.....	·11	·08	·58	·13	·01		·25
March	·87	·87	1·01	·97	·69	·41	·88
April	2·12	1·85	2·01	2·10	1·23	1·61	1·83
May	3·07	2·66	2·74	2·84	2·71	2·44	2·81
June.....	3·50	3·13	3·24	3·08	2·71	3·60	3·06
July	3·28	2·97	3·17	3·47	2·59	2·66	3·26
August.....	2·47	2·42	1·87	2·66	1·47	1·72	2·30
September.....	1·87	1·52	1·81	2·16	1·40	1·74	1·91
October	1·07	·85	1·00	1·32	·42	·73	·92
November	·16	·08	·13	·60	·09	·03	·26
December	·34	·19	c ·17	·28	·00	..	·22
Year.....	18·95	16·66	17·74	19·84	13·33	..	17·83
Average, 1908–1929	17·37	..	..	19·19	15·83	..	..
Difference	+1·58	..	..	+ ·65	+2·50	..	..

NOTE.—In the Table c indicates an excess of condensation over evaporation.
* Excluding Edinburgh.

Table XXIX—*Rainfall, Percolation and Calculated Evaporation in* 1929.

(Unless otherwise stated the size of the percolation gauges is 3 ft. × 3 ft. × 3 ft.)

1929	Compton, Sussex.		Grayshott, Hants.		Harrogate, Yorks.	
	Rainfall.	Percolation.	Rainfall.	Percolation.	Rainfall.	Percolation.
	in.	in.	in.	in.	in.	in.
January	1·50	1·13	1·77	1·21	1·51	1·58
February	1·63	1·87	·82	1·66	·70	·87
March	·15	·05	·09	·23	·55	·20
April	·83	·00	·78	·02	1·33	·05
May	3·81	1·08	2·86	·91	1·51	·02
June	1·70	·00	1·66	·00	1·20	·00
July	2·10	·00	1·69	·00	3·04	·19
August	2·31	·00	2·51	·00	2·26	·03
September	·86	·00	·24	·00	·49	·00
October	4·67	·00	4·75	1·02	3·32	·28
November.....	9·68	7·50	9·20	7·82	4·23	3·60
December	7·94	7·90	9·21	9·98	5·51	5·91
Year	37·18	19·53	35·58	22·85	25·65	12·73
Calculated Evaporation ..	..	17·65	..	12·73	..	12·92

1929	¶ Rothamsted, Herts.				¶ Craibstone, Aberdeen.			
	Rainfall.	Percolation.**			Rainfall.	Percolation. §		
		20 in. Soil.	40 in. Soil.	60 in. Soil.		1 * 40 in. Soil.	2 † 40 in. Soil.	3 ‡ 40 in. Soil.
January ...	1·53	1·15	1·38	1·22	2·38	2·35	2·30	1·89
February ..	·73	·71	1·00	·93	2·78	2·57	2·45	1·91
March	·04	·00	·02	·01	·33	·86	·84	·57
April	1·44	·14	·24	·22	2·08	·19	·21	·15
May.....	2·85	·85	1·10	1·02	2·37	·98	·98	·67
June	·97	·00	·03	·03	2·44	·01	·02	·00
July	1·33	·00	·01	·01	4·08	·00	·00	·00
August	·56	·00	·00	·00	2·83	·13	·53	·31
September .	·22	·00	·00	·00	1·16	·00	·01	·00
October ...	4·09	1·90	1·89	1·34	3·84	·37	·98	·92
November .	6·25	5·93	6·09	5·79	3·82	2·81	2·78	2·80
December..	5·74	5·56	5·78	5·49	8·60	7·95	7·68	7·38
Year	25·75	16·24	17·54	16·06	36·71	18·22	18·78	16·60
Calculated Evaporation	..	9·51	8·21	9·69	..	18·49	17·93	20·11

** Through bare unworked soil. § The gauges were under hay. * Unmanured.
† Manured. ‡ Manured and limed. ¶ Area of gauges one thousandth of an acre.

Table XXX.—*Evaporation at Camden Square, London,* 1885-1929.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1885	·20	·38	·86	1·71	1·98	2·77	3·29	2·25	1·13	·77	·17	·11	15·62
1886	·23	·13	·53	1·59	1·78	2·93	3·12	1·86	1·46	·63	·27	·12	14·65
1887	c·07	·29	·76	1·72	1·79	3·68	3·76	2·54	1·25	·78	·21	·07	16·78
1888	·07	·37	·48	1·16	2·71	2·24	1·44	1·90	1·17	·60	·43	·03	12·60
1889	·03	·18	·62	1·07	1·76	2·97	2·34	1·96	1·52	·42	·29	c·13	13·03
1890	·08	·19	·50	1·44	2·63	2·14	2·33	2·02	1·27	·79	·31	·04	13·74
1891	·03	·16	·73	1·35	1·66	2·83	2·34	1·67	1·00	·62	·20	·22	12·81
1892	·05	·09	·60	1·88	2·65	3·05	2·84	2·20	1·01	·36	·02	·20	14·95
1893	c·03	·01	·92	2·33	3·06	3·62	3·12	2·85	1·48	·70	·11	·01	18·18
1894	c·04	·28	·83	1·17	2·10	2·48	2·49	1·91	·97	·37	·20	·11	12·87
1895	·14	·64	·36	1·26	3·06	3·31	3·07	2·12	1·27	·54	·19	·07	16·03
1896	·16	·24	·64	1·57	3·06	3·21	3·63	1·96	·68	·47	·18	·00	15·80
1897	·23	·21	·76	1·23	2·99	2·48	3·60	2·49	·99	·63	·26	c·14	15·73
1898	·19	·37	·51	1·28	1·56	2·10	2·96	2·53	1·73	·45	·11	·16	13·95
1899	·04	·28	·52	1·24	2·34	3·67	4·03	3·78	2·01	·45	·41	·11	18·88
1900	·03	·16	·80	1·46	2·35	2·85	4·25	2·61	1·61	·89	·24	·15	17·40
1901	·13	·24	·60	1·98	3·25	3·85	3·37	3·19	1·42	·64	·31	c·05	18·93
1902	·16	·15	·71	1·75	1·78	2·33	3·30	1·71	1·47	·69	·28	·27	14·60
1903	·26	·39	·97	1·57	2·24	2·79	3·35	2·53	1·51	·86	·29	·12	16·88
1904	c·09	·26	·54	1·68	1·81	3·32	4·06	2·86	1·20	·50	·26	·02	16·42
1905	·17	·35	·65	1·14	3·19	2·49	3·65	2·23	1·24	·78	·09	·16	16·14
1906	·06	·21	·73	1·90	1·90	3·53	3·65	3·46	2·38	·78	·27	·16	19·03
1907	·21	·38	1·02	1·27	1·93	2·47	2·65	2·24	1·72	·49	·27	·19	14·84
1908	·05	·27	·56	1·32	2·23	3·77	2·75	2·47	1·25	·48	·29	·14	15·58
1909	·14	·30	·30	1·85	2·93	1·70	2·60	2·23	·84	·76	·17	·16	13·98
1910	·22	·17	·80	1·43	2·52	2·57	2·00	2·12	1·42	·76	·19	·10	14·30
1911	·15	·32	·59	1·77	2·58	3·34	4·60	3·19	1·96	·64	·37	·02	19·53
1912	·24	·16	·79	2·34	2·44	2·49	2·55	1·69	1·41	·39	·33	·12	14·95
1913	·10	·32	·77	1·25	2·49	3·13	2·15	2·09	1·07	·61	·36	·32	14·66
1914	·09	·24	·52	1·84	2·56	2·93	2·72	1·99	1·68	·70	·28	·05	15·60
1915	·11	·13	·66	1·65	2·90	3·15	2·50	1·76	1·61	·56	·25	c·03	15·25
1916	·19	·34	·30	1·61	2·32	2·20	2·23	2·34	1·20	·76	·34	c·04	13·79
1917	·11	·17	·53	1·18	3·06	3·01	2·81	1·95	1·16	·75	·34	·12	15·19
1918	·14	·27	·85	·89	2·38	3·01	2·59	2·04	1·69	·40	·24	·16	14·66
1919	c·12	·13	·66	1·06	2·94	3·39	1·90	2·78	1·53	·61	·08	·06	15·02
1920	·20	·24	·78	·85	2·71	2·85	2·09	2·00	1·04	·66	·04	·00	13·46
1921	·20	·28	·96	1·91	3·04	3·66	4·17	2·56	1·72	·72	·19	·28	19·69
1922	·16	·31	·96	1·20	2·93	3·36	2·09	1·74	1·11	·66	·27	·14	14·93
1923	c·01	·16	·65	1·26	2·16	2·16	3·59	2·79	1·24	·73	·24	·02	14·99
1924	c·17	·28	·73	1·28	2·27	2·91	3·21	1·82	1·11	·59	·33	·11	14·47
1925	·12	·30	·83	1·30	2·34	3·48	2·61	1·58	1·01	·56	·37	·00	14·50
1926	c·03	·12	1·03	1·06	2·07	2·50	2·51	2·12	1·34	·74	·20	·05	13·71
1927	·05	·19	·65	1·45	2·91	2·64	2·01	1·75	1·08	·37	·29	·13	13·52
1928	c·04	·23	·70	1·33	2·15	3·04	4·08	2·17	1·67	·57	·36	·03	16·29
1929	·20	·29	·64	1·53	2·66	2·93	3·42	2·22	1·81	·80	·27	·14	16·91
Average 1885–1919 ..	·10	·25	·66	1·51	2·43	2·91	2·97	2·33	1·38	·62	·25	·09	15·50
Difference 1929	+·10	+·04	—·02	+·02	+·23	+·02	+·45	—·11	+·43	+·18	+·02	+·05	+1·41

NOTE.—c indicates condensation.

METEOROLOGICAL OFFICE, AIR MINISTRY.

BRITISH RAINFALL ORGANIZATION.

BRITISH RAINFALL, 1929.

PART III.

GENERAL TABLE

OF

TOTAL RAINFALL IN 1929

AT

STATIONS

IN

GREAT BRITAIN AND IRELAND

WITH THE NAMES OF

THE OBSERVERS

OR OTHER AUTHORITIES FOR THE OBSERVATIONS.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE

GENERAL TABLE OF TOTAL RAINFALL IN 1929.

EXPLANATORY NOTE.

The Divisions of Great Britain in the General Table are the same as those adopted by the Registrars-General of England and Scotland.

The counties are divided up into numbered areas, corresponding to the river-basins. An account of these river-divisions for England and Wales was given in a special article in Part I of *British Rainfall*, 1910 (pp. 37-66), and a similar article on the river-divisions of Scotland and Ireland appeared in Part I of *British Rainfall*, 1911 (pp. 40-72), with detailed maps showing all the river-divisions in each Division. Reprints of these articles are available. The areas of the river basins of the Great Ouse and tributaries in Norfolk and Cambridge were redetermined in 1928; the values printed in this volume and in the volume for 1927 differ slightly from those published in *British Rainfall* from 1910 to 1926. The sequence of river divisions in Great Britain proceeds anti-clockwise from the Solway Firth. For example, in the West Riding of Yorkshire we have four divisions for rivers flowing to the Irish Sea, followed by eight divisions for rivers tributary to the Humber.

The stations in each river-division are arranged nearly in the order of their latitude from South to North. For convenience, the first name defining a station is that of a place which can be found on any large scale map; occasionally it is in an adjoining county. The second name is added to fix the site of observation more closely, *e.g.*, "Haslemere (Clammer Hill)" means Clammer Hill, near Haslemere.

In some cases the records have been received from a local rainfall organization. This has been indicated by a footnote.

In the column headed "Diameter," figures in old style type indicate the length of the sides of rectangular gauges.

The letter D signifies that daily observations have been received and are complete for the year; d, that less complete daily records have been received; w indicates that weekly readings have been received, and M that the gauge is read only once a month, usually on the 1st.

(R) denotes that the gauge is a mechanical one, the correct reading of which depends on the mechanism being in working order.

(A) denotes that the amount of rainfall is taken from the chart of an autographic instrument.

(+A) denotes that the amount of rainfall is taken from an ordinary gauge and that an autographic instrument is also in use.

Where two or more gauges are maintained at the same station the comparison of the records is seldom of general interest. The rule has now been adopted that in such cases only one record will normally be published in *British Rainfall.* The use of mechanical gauges for measuring the total rainfall is not recommended by the Meteorological Office, and the number of records marked (R) or (A) is therefore small.

Gauges which have been inspected and found to be over-exposed on moorland have been so marked. It is likely that there are other gauges (notably some of those at lighthouses) which are also over-exposed.

The column for the total rainfall in millimetres, which was a feature of the corresponding table in the volumes for the years 1914 to 1925, has been omitted since 1926, and the space thus set free is devoted to a column for average annual totals, expressed in inches, to the nearest tenth of an inch. The averages do not all refer to a single period of time and they are not necessarily therefore strictly comparable with one another. The rule which has been adopted is that all available averages are admitted to this table (*a*) which are derived from reliable observations extending over a period of at least 20 years; (*b*) which, after critical examination of available records have been reduced by the accepted method to the standard period of 35 years, 1881—1915. Averages for this standard period, if available, are always preferred for entry in the table.

A few entries of total rain will be found in brackets—indicating that the values have been corrected, *e.g.*, when snow has been lost, when the amount for a short period has been computed from other records, or when the gauge has been moved a short distance during the year. A record is not as a rule printed if the gauge has been moved more than a mile, or if there is a greater difference than 50 ft. of altitude between the two positions.

A note of interrogation (?) implies doubt, not necessarily error. The absence of information is indicated by ..

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ENGLAND AND WALES.

DIVISION I.—LONDON. (Area, 117 sq. mi.)

	STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
	1.—THAMES.—Right Bank Tributaries. 67. sq. mi.		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	BERMONDSEY.								
D	Southwark Park	London County Council	5	1 0	9	..	20·87	129	104
	LAMBETH.								
D	Brockwell Park	London County Council	5	1 0	120	..	21·18	120	91
d	Brixton Hill Reservoir	Met. Water Board	5	1 1	121	..	21·47	123	92
	BATTERSEA.								
D	Battersea Park	London County Council	5	1 0	13	..	20·74	109	87
D	Battersea Waterworks	Met. Water Board	5	1 0	6	22·6	19·62	119	89
	WANDSWORTH.								
D	Streatham (Conyers Road)	Met. Water Board	5	1 0	119	23·6	20·22	130	92
d	Streatham Hill Reservoir	Met. Water Board	5	1 0	205	..	21·12	114	94
D	Putney Heath Reservoir	Met. Water Board	5	1 6	180	24·9	19·92	135	96
D	Balham High Road (+A)	E. J. Elford, Esq., C.E.	5	1 6	89	..	20·99	121	88
d	Wandsworth Common	A. Parmee, Esq.	5	1 0	100	..	18·69	..	..
D	Southfields(CoronationGds)(+A)	E. J. Elford, Esq., C.E.	5	1 6	37	..	21·63	126	92
D	Larkhall Rise	Guy M. Quiller, Esq.	5	1 1	55	..	16·70	126	84
	CAMBERWELL.								
D	Nunhead (Nunhead Reservoir)	Met. Water Board	5	1 0	175	23·1	19·44	122	92
d	Dulwich College	E. W. Goodman, Esq.	5	1 0	150	..	(19·91)	..	..
	DEPTFORD.								
D	Telegraph Hill	London County Council	5	1 0	135	..	17·61	113	83
D	Waterworks	Met. Water Board	5	1 0	20	23·0	21·09	130	82
	GREENWICH.								
D	Deptford Pumping Station (+A)	London County Council	8	1 0	18	24·9	20·62	118	84
D	Royal Observatory	Sir F. W. Dyson, F.R.S.	8	0 5	149	23·5	21·71	143	86
D	Westcombe Park Road	Rev. T. R. Price	8	1 3	154	..	21·64	135	90
	LEWISHAM.								
D	Forest Hill Reservoir	Met. Water Board	5	1 0	337	25·9	21·83	129	100
D	Clarendon Road	G. E. Dacey, Esq.	5	1 0	98	..	23·40	147	96
	WOOLWICH.								
D	Eltham (High Street)	Met. Water Board	5	1 0	245	24·3	21·88	119	89
	2.—THAMES.—Left Bank Tributaries. 50 sq. mi.								
	KENSINGTON.								
D	Harley Gardens	Mrs. Hamlyn Price	5	1 5	29	..	19·72	130	95
D	Holland House	Mr. P. B. Rintoul	5	1 6	69	24·9	20·11	118	91
D	Campden Hill Reservoir	Met. Water Board	5	1 0	142	27·5	19·45	123	94
D	Kensington Palace (+A)	The Meteorological Office	8	1 0	80	..	20·68	133	92
	HAMMERSMITH.								
D	The Creek	London County Council	5	3 0	19	..	20·92	129	103
	FULHAM.								
D	Hammersmith Cemetery	R. J. Brown, Esq.	5	1 0	17	..	19·22	111	89
D	Bishops Park (+A)	A .F. Holden, Esq., C.E.	5	0 11	15	..	19·74	112	91

DIVISION I.—LONDON—(*con.*).

	STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
	2.—THAMES—Left Bank Tributaries—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	CHELSEA.								
D	Physic Garden	W. Hales, Esq.	5	1 0	20	23·8	19·83	112	91
D	Oakley Street	A. Hampton Brown, Esq.	5	1 0	25	..	19·39	135	91
D	St. Luke's Gardens	W. R. Manning, Esq., C.E.	5	1 0	25	24·9	19·57	129	89
	WESTMINSTER.								
D	Western Pumping Station	London County Council	8	1 0	19	23·5	19·02	119	88
D	King's Scholar's Pond	London County Council	8	11 6	31	..	19·48	123	84
D	Buckingham Palace	Mr. W. Osborne	5	8 0	35	24·9	20·62	122	92
D	Kensington Gardens	Prof. S. M. Dixon	5	1 0	78	..	20·82	118	91
D	St. James's Park (+A)	The Meteorological Office	8	1 0	27	22·4	20·44	123	97
D	Spring Gardens	London County Council	8	6 0	35	24·0	19·60	131	93
	ST. MARYLEBONE.								
D	Royal Botanic Gardens	J. L. North, Esq.	8	1 0	130	26·6	22·54	147	105
	HAMPSTEAD.								
D	Barrow Hill Reservoir	Met. Water Board	5	1 0	175	25·2	22·29	122	103
D	Kidderpore Reservoir	Met. Water Board	5	1 0	328	24·8	22·81	111	95
D	Observatory	E. L. Hawke, Esq.	8	1 0	450	..	25·53	183	105
D	North Square	M. B. Wright, Esq., M.D.	5	1 0	250	..	24·18	118	100
D	Golders Hill Park	London County Council	5	1 0	350	..	25·62	129	116
	ST. PANCRAS.								
D	Camden Square (+A)	Royal Meteorological Soc.	8	1 0	110	24·5	22·57	134	99
D	Camden Square *Snowdon*	Royal Meteorological Soc.	5	1 0	110	24·5	22·55	134	99
M	Camden Square	Royal Meteorological Soc.	5	1 0	110	..	22·57	..	..
d	Kentish Town (C. E. School)	V. E. Steers, Esq.	5	0 11	50	..	22·66	134	99
	STOKE NEWINGTON.								
D	New River Filter Beds	Met. Water Board	5	1 3	101	24·6	20·71	121	96
D	New River Reservoirs	Met. Water Board	5	1 0	105	25·4	20·44	117	93
	HACKNEY.								
D	Clapton Pond (+A)	P. Holt, Esq., C.E.	5	1 0	69	24·2	19·72	121	90
	FINSBURY.								
D	New River Head	Met. Water Board	8	1 0	95	23·5	19·74	117	94
	BETHNAL GREEN.								
d	Victoria Park	London County Council	5	1 0	43	..	19·63	..	88
	POPLAR.								
D	Isle of Dogs (Island Gardens)	London County Council	5	1 0	18	..	18·54	118	85
D	Old Ford Pumping Station	Met. Water Board	8	0 9	19	23·7	19·57	123	96
D	Old Ford (Penstock House) (+A)	London County Council	8	1 0	43	23·6	21·02	127	95
	WOOLWICH.								
D	N. Woolwich Pumping Stn. (+A)	London County Council	8	0 9	12	22·9	18·62	114	86
D	Barking Outfall	London County Council	8	0 9	9	21·8	18·79	139	84

DIVISION II.—SOUTH EASTERN COUNTIES.

SURREY. (Area, 725 sq. mi.)

1.—ARUN. 45 sq. mi.

D	Haslemere (Clammer Hill)	Mrs. Glennie	5	1 6	400	35·8	35·14	134	104
D	Haslemere (Grayshurst)	C. W. Dixon, Esq.	5	1 0	621	..	33·46	132	106
d	Chiddingfold (Stonehurst)	H. St. John H. Bashall, Esq.	5	1 1	200	..	32·29	..	..
D	Hambledon (Rossall)	L. R. Furneaux, Esq.	5	1 0	250	..	31·09	149	98

2.—MEDWAY. 50 sq. mi.

D	East Grinstead (Lockeridge)	Lt.-Col. J. F. Forbes, D.S.O.	5	1 0	320	..	33·05	139	104
D	Dormans Park (Chartham Park)	I. D. Margary, Esq.	5	1 0	270	..	33·40	140	103
D	Dormans Park (Hill Crest)	Dr. H. R. Mill	5	1 0	320	..	34·47	151	104

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*)

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SURREY—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—MEDWAY—(*con.*).								
Lingfield (Felcourt)	R. McAlpine, Esq.	5	1 3	225	..	31·46	..	..
D S. Godstone (Hartsridge)	F. E. Goad, Esq.	5	0 10	450	..	30·14	143	108
D Bletchingley (North Park Farm)	S. W. Searles, Esq.	5	1 0	400	..	31·02	135	110
D Oxted (Stone Hall)	W. P. Metcalfe, Esq.	5	1 5	320	..	28·10	141	106
D Oxted (West Heath)	Norman W. Grieve, Esq.	8	1 2	500	..	29·96	132	106
3.—THAMES—Darent. 22 sq. mi.								
d Tatsfield School	B. Hammond, Esq.	5	1 8	741	..	30·26	..	..
Chelsham (Ledgers)	Mrs. H. A. Daniell	5	1 5	620	..	31·05	..	..
D Farleigh (Croydon Ment. Hosp.)	Croydon Corporation	8	1 0	100	..	33·76	118	96
Chelsham (Fairchildes)	A. S. Daniell, Esq.	5	1 0	600	33·7	30·17	..	..
D Addington (Hares Bk. Pump. Sta.)	Croydon Corporation	8	1 0	331	..	28·10	134	97
D Addington Hills Reservoir	Croydon Corporation	8	1 0	472	29·4	27·80	139	99
D Norwood (Auckland Road)	Miss J. Cooper	5	1 5	230	23·7	20·02	116	85
4.—THAMES—Wandle. 71 sq. mi.								
D Kingswood (Margery Hall Res.)	W. Vaux Graham, Esq., C.E.	5	1 0	691	..	30·41	137	108
M Woldingham Reservoir	W. Vaux Graham, Esq., C.E.	5	1 6	851	..	31·74	..	..
M Woldingham Reservoir (New G)	W. Vaux Graham, Esq., C.E.	5	1 6	841	..	33·78	..	..
D Caterham Reservoir	A.E.Cornewall-Walker, Esq.	5	1 2	717	34·6	32·53	144	103
D Caterham Valley (Croydon Rd.)	A. M. Worfolk, Esq.	5	6 0	435	..	36·66	119	98
D Tadworth (Glade House)	W. J. Saunders, Esq.	5	1 0	545	..	31·45	151	106
D Chelsham & Woldingham	W.W.W.Vaux Graham, Esq., C.E.	5	1 0	479	..	32·17	136	97
D Woldingham (Marden Park)	S. W. Searles, Esq.	5	1 0	500	..	33·66	138	95
D Caterham Valley Depot	A.E.Cornewall-Walker, Esq.	5	1 6	431	..	33·65	154	107
D Banstead (Burgh Heath)	Capt. E. R. Taylor	5	1 0	571	32·6	31·32	142	101
D Banstead (Burgh Heath Res.)	W.Vaux Graham, Esq., C.E.	5	1 0	600	32·7	29·05	129	98
M Chipstead (How Green Res.)	W.Vaux Graham, Esq., C.E.	5	1 0	528	..	29·58	..	..
D Kenley Pumping Station	A.E.Cornewall-Walker, Esq.	5	1 6	275	..	28·94	134	99
Coulsdon (The Chase)	J. H. Lowe, Esq.	5	0 6	400	..	29·36	136	100
d Coulsdon (Marlpit Lane)	Charles Knight, Esq.	5	0 6	350	..	31·74	136	103
D Banstead Mental Hospital	S. J. Wray, Esq.	5	4 6	425	..	27·31	134	112
D Purley (Oakwood Avenue)	E. W. Finch, Esq.	5	1 0	380	..	28·95	141	100
d Purley (Downscourt Rd)	J. Edmund Clark, Esq.	5	1 0	360	30·9	(29·32)	..	..
D Purley (Pumping Station)	A.E.Cornewall-Walker, Esq.	5	1 3	225	30·1	29·51	150	112
d Purley (Russell Hill)	Mrs. Gillbee	5	1 0	350	..	30·19	135	106
D Purley (Green Lane)	E. E. Bluett, Esq.	5	1 0	341	..	27·39	132	99
D Purley (Hillcrest Road)	W. J. Fisher, Esq.	8	1 6	370	..	28·37	140	104
D Purley (St. Mark's Vicarage)	Mrs. Shattock	5	1 0	336	..	27·66	125	99
D Croydon Aerodrome (+A)	The Meteorological Office	8	1 0	244	26·7	26·22	130	98
D South Croydon (Avondale Road)	G. Macdonald Davies, Esq.	5	1 0	195	29·4	28·12	148	99
D South Croydon (Harewood Rd.)	Mrs. Morland	6	0 8	300	..	24·93	114	89
D Carshalton (Sewage Works)	Surveyor, U.D.C.	5	1 0	118	25·9	23·39	114	89
d Carshalton (The Grove)	H. J. Spicer, Esq.	8	1 0	130	..	23·98	..	90
D Beddington (Sewage Farm)	Croydon Corporation	5	1 0	129	..	24·29	142	94
D Croydon (Northampton Road)	Mrs Higgins	5	1 0	210	..	25·61	135	96
D Beddington Cor. (Millgreen Rd.)	S. C. Miller, Esq.	5	5 0	77	26·2	22·68	122	92
D Wimbledon (Trinity Road)	P. J. Bevan, Esq., C.E.	5	1 0	53	..	21·14	126	94
D Wimbledon (Compton Road)	G. H. Cheesman, Esq.	5	1 6	80	..	20·55	132	92
D Wimbledon (Sewage Pmp. Sta.)	T. Webster, Esq., C.E.	5	1 0	55	..	20·69	119	88
5.—THAMES—Mole & c. 229 sq. mi.								
d Horley (Wrays)	A. R. Allcroft, Esq.	5	1 0	290	..	31·76	..	110
D Outwood (The Orchards)	H. Gurney, Esq.	5	1 0	274	26·0	33·09	135	107
D Dorking (Bramerton)	Rev. Jas. F. Twist	5	1 0	300	..	32·68	132	104
Dorking (Denbies)	Mr. J. Ansell	5	0 6	610	32·2	32·39	132	..
D Brockham	H. R. Kempe, Esq., C.E.	8	0 9	180	31·2	29·80	112	94

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SURREY—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
5.—THAMES—Mole & c.—(*con.*).								
D Betchworth (Snower Hill)	T. DuBuisson, Esq.	8	0 11	250	..	30·52	122	99
South Nutfield (Hale Edge)	R. C. Grant, Esq.	5	1 0	250	28·7	28·24	135	107
D Earlswood (Sewage Farm)	F. T. Clayton, Esq., C.E.	5	1 6	196	..	28·71	133	100
D Redhill (London Road)	A.E.Cornewall-Walker,Esq.	5	1 6	270	..	28·85	146	103
D Reigate (Woodcote)	Herbert Crosfield, Esq.,J.P.	5	0 10	310	..	29·55	142	97
D Reigate (Wray Park Road)	W. J. MacAndrew, Esq.	5	1 0	330	..	30·64	138	102
D Reigate (Castle Grounds)	F. T. Clayton, Esq., C.E.	5	1 6	350	30·4	30·28	186	119
D Reigate (Thurso)	F. S. Smith, Esq.	8	1 0	270	..	26·89	122	92
D Nutfield (Elstree)‡	D. Morphew, Esq.	5	1 0	430	..	27·78	143	97
D Bletchingley (South Park Fm)	Uvedale H. Lambert, Esq.	5	1 0	340	31·4	29·65	114	93
d Merstham (Gatton Point)	C. F. Bull, Esq.	5	1 0	300	..	30·38	144	105
D Headley Rectory	Rev. T. E. R. Phillips	5	1 0	570	..	30·96	148	101
D Headley (The Hurst)	Mrs. Lyall	5	1 3	420	32·2	29·01	112	98
D Walton-on-the-Hill	Mr. J. Millichamp	5	1 0	600	31·7	30·55	145	105
D Fetcham W.W. †	A.E.Cornewall-Walker,Esq.	5	1 0	102	..	28·43	147	103
D Leatherhead (Dunard Lodge)	G. R. Crompton, Esq.	8	1 0	233	..	28·24	137	95
D Tadworth	C. H. L. Blaxland, Esq.	5	1 4	600	..	30·62	169	113
D Ashtead (The Hut)	Mr. E. Langridge	5	1 0	200	..	26·37	139	96
d Epsom College	J. P. Underhill, Esq.	8	1 2	300	..	(25·53)	(119)	(96)
D Epsom (Sewage Farm)	E. G. Timbrell, Esq., C.E.	8	1 0	120	25·4	21·32	114	90
D Whiteley Village (Fox Oak)	H. E. Cooke, Esq.	8	3 4	195	..	24·07	142	99
D Cobham (Uplands)	R. S. Morrish, Esq.	5	0 6	180	..	26·33	131	100
D Cobham (Sandroyd School)	C. St. John Shortt, Esq.	5	1 6	120	..	23·74	119	99
Weybridge (St. George's Hill)	Mrs. Buckley	5	0 10	200	..	23·56	..	..
D Sutton (Camborne Road)	F. E. Wright, Esq.	5	1 0	250	29·3	26·43	142	101
D Claygate (Hertslets)	N. C. Armitage, Esq.	5	1 0	106	..	20·99	152	96
D Esher (Halidon)	D. H. Baird, Esq., C.B.E.	5	1 5	114	..	20·23	140	92
D Sutton (Waterworks)	W. Vaux Graham, Esq., C.E.	5	1 6	166	26·0	25·14	126	103
D Sutton (Sewage Works)	W. H. Grieves, Esq., C.E.	5	1 0	94	28·8	20·93	120	84
d Worcester Park (Sewage Works)	W. H. Grieves, Esq., C.E.	5	3 0	60	..	20·91	..	86
D Surbiton (Worthington Road)	W. Stephens, Esq.	5	1 0	82	..	25·47	132	103
D Surbiton (Seething Wells)	Met. Water Board	5	0 10	34	24·9	21·77	123	94
D Surbiton (Effingham Road)	K. G. Willis, Esq.	5	1 1	..	..	22·24	151	94
D West Molesey (Walton Works)	Met. Water Board	5	0 6	35	23·5	20·38	126	98
D New Malden (Dunbar Road)	J. W. Harris, Esq.	5	1 0	18	..	23·89	135	97
D New Malden (Sewage Works)	R. H. Jeffes, Esq., C.E.	5	1 0	48	23·4	20·38	128	95
D Kingston (County Hall)	H. Wilson, Esq.	5	0 9	31	26·0	20·52	126	93
D Kingston Sewage Works	P. G. Lloyd, Esq.	5	1 0	25	27·9	20·60	117	94
d Kingston (Grammar School)	W. R. Warner, Esq.	5	1 0	32	..	20·13	115	89
d Merton Park (Mostyn Rd.)	A. T. Bench, Esq.	5	1 0	55	..	(22·60)	..	..
D Merton Park (Innes Hort. Inst.)	A. Hoskin, Esq.	5	1 0	55	..	20·79	128	93
D Merton (Joseph Hood Rec. Gd.)	The Engineer	5	1 0	48	..	20·12	126	94
D Raynes Park (C. School)	C. V. Manley, Esq.	5	1 0	50	..	21·89	128	94
D Raynes Park (Cottenham Pk P.S.)	T. Webster, Esq., C.E.	5	1 2	50	24·9	21·61	116	91
D Raynes Park (Richmond Road)	W. B. de Winton, Esq.	5	1 1	70	..	22·81	140	103
D Wimbledon (Worple Road)	N. Lang Smith, Esq.	5	1 0	75	..	21·96	140	97
D Richmond (The Terrace)	G. Humpfreys, Esq.	5	1 6	25	24·9	21·27	129	103
D Richmond (Kew Observatory) (+A)	The Meteorological Office	8	1 0	18	23·8	21·39	131	92
D Mortlake (Hammersmith Cem.)	R. J. Brown, Esq.	5	1 0	23	..	21·29	129	92
D Kew (Royal Botanic Gardens)	The Director	8	0 9	20	..	21·71	128	92
D Barnes (Barn Elms)	Met. Water Board	5	1 0	16	..	19·88	120	93
6.—THAMES—Wey. 236 sq. mi.								
D Haslemere (U.D.C. Depot)	A. G. Whitcher, Esq.	5	1 0	475	36·2	38·12	133	111
D Haslemere (Frensham Hall Gdns.)	H. Windibank, Esq.	5	2 0	750	..	37·28	132	115
D Haslemere (Frensham Hall Farm)	H. Windibank, Esq.	5	1 0	600	37·4	34·92	132	112
D Haslemere (Littledale)	F. Harrison, Esq.	5	1 0	770	..	33·24	119	103
D Haslemere (Furnace Place)	F. J. Barlow, Esq.	5	1 0	300	..	34·91	120	102
D Oakwood Hill (Honeywood Ho)	The Lady Tredegar	5	1 0	280	..	29·30	146	109
D Witley (King Edward's School)	E. Townsend, Esq.	5	1 0	300	..	31·74	123	90
D Witley (King George V. Sanatm.)	Dr. J. Watt	5	1 0	305	..	31·24	130	104
D Churt (Furze Hills)	Rev. C. G. O. Bond, M.A.	5	1 6	390	..	30·62	130	110

† Formerly called Leatherhead W. W. ‡ Over-exposed.

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SURREY—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
6.—THAMES—Wey—(*con.*).								
D Churt (Bron-y-dêl)	Rt. Hon. D. Lloyd George.	8	1 11	350	..	31·85	142	102
D Hascombe Place	C. T. Musgrave, Esq.	5	1 0	390	33·5	33·99	140	105
D Cranleigh (Homefield Cottage)	W. S. Sarel, Esq., C.B.	5	1 9	180	..	28·94	134	103
D Godalming (Hascombe)	Mrs. Francis Howard	5	0 6	390	..	32·41	141	113
D Ewhurst (Coneyhurst)	Col. R. J. Few, D.S.O.	8	1 0	607	33·7	29·65	144	105
D Ewhurst (The Four Winds)	Miss E. Brooke	5	1 0	809	..	31·36	150	104
d Ewhurst (Woolpits)	Mr. W. Harrison	8	1 6	600	32·8	31·21	..	105
D Frensham (Spreakley Hollow)	A. R. Crossley, Esq.	5	1 0	200	..	29·83	124	107
d Godalming (Munstead Heath)	A. M. P. Hodsoll, Esq.	5	1 0	450	..	29·56	..	91
Godalming (Greylees)	A. Ewan, Esq.	5	1 0	150	..	29·86	..	..
Godalming (Westbrook)	T. Turner, Esq.	5	1 0	280	..	30·21	..	..
D Godalming (Charterhouse)	O. H. Latter, Esq.	5	1 0	130	29·2	28·89	138	96
d Wonersh (Little Tangley)	Mrs. Kinnersley Hooper	5	1 0	200	..	27·17	..	..
d Shackleford (Hall Place)	Mr. E. Nash	8	1 2	200	..	27·87	..	98
D Peaslake (Dewdney)	Sir F. G. Ogilvie, C.B.	5	1 0	532	..	32·17	136	102
D Bramley (Wood View)	Rev. C. J. Etty	5	1 0	135	..	28·40	118	106
Compton (Sandy Knowe Gdns)	Mrs. F. Houghton	..	..	..	..	25·25	..	..
D Shere (Manor House)	R. A. Bray, Esq.	5	1 0	330	..	29·56	148	97
D Shere (The Rectory)	Rev. Sir P.M. Bowman, Bt.	5	1 3	200	..	28·86	132	97
D Albury (Dalton Hill Gardens)	Mr. J. Tidy	5	1 0	250	..	27·69	117	104
D Abinger Hall	Lord Farrer	8	0 10	360	36·5	34·50	143	111
Shalford (Clonkeen)	G. H. Pentland, Esq.	..	..	110	..	25·26	140	..
D Farnham (Crooksbury Ridges)	F. R. Walters, Esq., M.D.	5	1 4	440	31·0	27·95	159	104
D Farnham (Short Heath Lodge)	Col. G. Chrystie	5	1 0	365	30·1	29·57	143	106
D Farnham (Bourne Corner)	Miss I. M. Deedes	5	1 0	365	..	31·37	136	113
D Puttenham (Berthorpe)	Capt. E. H. Tuckwell, M.C.	5	1 0	350	..	28·54	134	94
D Guildford (Pilgrim Wood)	H. A. Powell, Esq., M.D.	5	1 0	320	..	28·67	135	93
D Guildford (Briarfield)	Miss L. B. Swaine	5	1 0	300	29·7	28·90	151	101
D Guildford (Pewley Hill)	Miss H. S. Pitman	5	1 0	365	..	30·03	180	105
D Guildford (West Mount)	Miss M. E. Powell	5	1 0	220	..	28·68	139	98
D Guildford (Roy. Gram School)	H. N. Weller, Esq., M.A.	5	1 0	200	..	27·19	126	94
d Guildford (Kilvington)	Miss Meynell.	5	1 0	300	..	27·73	(140)	(96)
D Guildford (Cross Lanes)	F. F. Smallpiece, Esq.	5	1 0	200	28·6	27·67	139	99
D Normandy (The Manor House)	E. S. Hose, Esq., C.M.G.	5	1 4	149	..	26·37	130	93
d Merrow (Stoodwell)	S. Eustace, Esq.	5	0 8	221	..	26·63	..	90
D East Clandon (Hatchlands)	F. A. Akers, Esq.	5	1 0	300	..	28·56	140	103
D West Clandon	W. Fidkin, Esq., C.E.	8	1 0	319	..	28·08	139	100
D Worplesdon (Openwood)	D. H. Welch, Esq.	5	0 8	160	..	25·60	116	100
D Worplesdon (Golf Club)	R. Goring Thomas, Esq.	5	1 6	168	..	25·37	121	95
d Send (Woodside)	G. M. Osborne, Esq.	8	0 10	146	..	24·58	..	..
D Sutton Green (Pyle Hill)	Capt. S. Price-Williams	5	1 6	140	..	23·95	128	96
D Ripley (Ripley Court)	Captain C. M. H. Pearce	5	1 5	86	..	24·93	131	99
D Woking (The Grange)	Miss M. E. Wilson	5	1 0	78	26·1	25·06	152	103
D Woking Westfield	Vernon B. Longhurst, Esq.	5	1 0	100	..	26·10	140	96
D Woking (Hook Heath)	W. S. Patterson, Esq.	5	1 0	160	..	25·31	125	100
Woking (Northwood)	G. T. E. Hamilton, Esq.	5	1 0	114	..	25·26	..	..
D Woking (The Green)	Mrs. G. E. Howlett	5	0 9	122	..	24·38	141	97
D Horsell (The Vicarage)	Rev. Canon Norman Pares	5	1 1	140	..	21·94	125	90
D Horsell (Hollesley)	Col. A. de B. V. Paget	5	1 1	100	..	22·99	122	90
D Wisley (R.H.S. Gardens)	W. D. Cartwright, Esq.	8	1 0	150	24·1	24·63	152	96
D Byfleet (West Hall Gardens)	Mr. G. Carpenter	5	1 0	61	..	24·66	118	98
D West Byfleet (Kilmeena)	F. Littleboy, Esq.	5	1 0	100	..	25·17	127	93
D West Byfleet (Starcross)	Walter W. Way, Esq.	5	1 0	110	..	25·50	123	101
d West Byfleet (Scotland Bridge)	Capt. H. Beeney	5	1 6	69	..	24·70	..	95
Weybridge (Oatlands Avenue)	Sir H. B. Peirse, Bart.	5	1 0	125	..	22·64	..	..
D Weybridge (St. Michael's)	H. I. Bond, Esq.	5	1 0	115	..	22·47	143	100
D Weybridge (Heath Field)	Miss A. T. Gardiner	5	1 0	100	26·5	22·73	136	99
D Weybridge (Oil Mills)†	A. Whittet, Esq.	5	1 0	36	24·1	21·66	124	96

† Formerly called Weybridge (West Oaks), gauge has not been moved.

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SURREY—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
7.—THAMES—Bourne. 55 sq. mi.								
d Bisley (Danesmere)	H. Ingham, Esq., M.A.	5	1 0	125	..	24·47	..	93
D Knap Hill (Ulundi)	G. C. H. Simmonds, Esq.	5	1 0	181	..	23·59	126	99
Knap Hill (Lynbrook)	Charles Wigan, Esq.	5	1 0	200	..	24·56	135	97
D Chobham (Sandpit Hall)	K. H. Power, Esq.	5	1 0	100	26·7	24·66	137	105
D Chobham (West End)	F. A. Walter, Esq.	5	1 0	150	..	26·26	152	116
D Bagshot (Charlton)	W. Perry, Esq.	5	0 10	215	..	26·06	133	102
D Bagshot	G. D. Waterer, Esq.	5	1 0	265	..	25·48	130	97
Windlesham (Sutherland Ho.)	O. H. Bradnack, Esq.	4	1 0	300	..	24·55	..	100
D Chertsey (Ottershaw)	Mrs. R. H. Otter	5	1 0	200	27·1	24·42	154	109
D Chertsey (Botleys Park)	Mr. H. Whitmarsh	5	1 5	111	..	23·66	133	100
D Upper Childown (Long Cross H.)	Miss C.M.Leycester-Penrhyn	5	1 0	200	..	25·50	159	112
d Sunningdale (Hilltop)	E. F. Cecil, Esq.	5	1 0	280	..	25·32	..	96
D Chertsey (Abbey Meads)	W. Fidkin, Esq., C.E.	8	1 0	53	..	21·32	125	93
d Virginia Water (S. Ann's Heath)	Rev. J. Peck, M.A.	8	1 1	120	25·4	23·91	..	97
D Staines (St. Ann's Cottage)	Rev. P. F. L. Burges	5	1 0	52	..	22·07	126	90
8.—THAMES—Loddon. 17 sq. mi.								
D Frimley Green Waterworks	S. G. Weller, Esq.	5	0 7	220	24·6	26·18	121	97
D Frimley Green (Ridgemount)	C. C. Haviland, Esq.	5	0 9	350	29·1	27·18	180	107
D Camberley (Way's End)	E. Ernest Green, Esq.	5	0 11	295	..	26·23	128	109
D Camberley (Cordwalles)	C. H. Ledward, Esq.	5	1 0	400	..	24·60	134	99
KENT. (Area, 1,532 sq. mi.)								
1.—ROTHER & C. 217 sq. mi.								
D Dungeness	The Meteorological Office.	8	0 11	20	24·4	25·34	141	110
D Lydd (The Paddock)	Dr. J. A. Proctor.	5	1 0	10	..	27·43	144	109
d Lydd (Westbroke House)	A. G. Finn, Esq., J.P.	5	1 0	10	..	26·18	..	105
d Brookland (Thrift Farm)	C. Clark, Esq.	12	3 0	11	..	30·54	..	101
D Dymchurch (Grove House)	R. S. Jones, Esq.	5	1 0	8	..	25·04	148	103
d Dymchurch (Hoornes)	Mrs. Paddock.	5	1 0	9	..	27·91	129	104
D Appledore (The Well House)	Dr. F. W. Cock	5	1 0	23	..	28·57	132	104
d Hawkhurst (Moor House)	F. S. Springett, Esq.	5	1 0	208	..	32·01	..	..
d Snave (Poplar House)	Miss E. E. Tickner	8	1 5	10	..	21·33?	..	..
D Hawkhurst (Hensill)	Mrs. F. Ross Thomson	5	1 0	180	30·5	31·41	134	109
d Kenardington (The Firs)	Cmdr. F. H. Lyon, D.S.O.	5	1 2	65	..	24·66	..	105
D Tenterden (Ashenden)	Major Herbert Neve	5	1 0	190	..	27·98	133	107
D Benenden (National Sanat'm)	H. Spurrier, Esq., M.B.	5	1 0	250	..	28·06	132	105
D Hythe	M. J. Harvey, Esq., C.E.	5	0 9	12	28·0	26·18	143	110
D Hythe (Douglas Avenue)	W. H. Elder, Esq.	5	1 0	18	..	27·44	141	111
D Hythe (Sandling Park)	Rt. Hon. L. Hardy	8	1 0	260	30·4	28·09	139	119
D Sandgate	J. A. Woodgate Esq., C.E.	5	1 0	60	..	25·87	138	112
D Saltwood (Cylinder)	Mrs. Chetwynd-Stapylton.	..	..	..	..	24·73	154	115
D Folkestone (Radnor Park West)	H. D. Seth-Smith, Esq.	5	1 0	90	..	28·51	137	117
D Folkestone (Borough Sanat'm)	A. E. Nichols, Esq., C.E.	5	1 0	101	28·6	25·43	135	109
D Folkestone (Cherry Gardens)	H. T. Turner, Esq., C.E.	5	1 6	230	29·1	27·50	146	109
D Capel (Lower Standen)	H. T Turner. Esq , C.E.	5	2 11	250	31·2	27·04	122	112
D Dover (Waterloo Crescent)	W. B. Smith, Esq., C.E.	8	1 0	22	..	25·90	130	106
D Dover (Waterworks)	W. B. Smith, Esq., C.E.	5	1 6	200	30·0	27·17	129	105
d Dover (Buckland)	Guy Mannering, Esq.	8	1 6	50	..	30·27	..	101
D Dover (Barton Road)	Cyril G. W. Lewis, Esq.	5	1 0	55	..	29·69	146	110
D Kearsney (Chilton Farm)	W. B. Smith, Esq., C.E.	5	1 6	127	33·5	34·82	137	115
2.—STOUR & C. 386 sq. mi.								
D Lympne Aerodrome (+A)	The Meteorological Office.	8	1 0	347	28·5	27·10	141	102
D Sellindge (Council School)	S. H. Serpell, Esq.	5	1 0	200	..	30·51	134	104
D Smeeth School	W. H. Wetherell, Esq.	5	1 0	300	..	27·76	154	107
D Lyminge (Elham Valley W.W.)	Phillip Harris, Esq.	5	1 6	445	..	30·38	152	117
D Swingfield (St. John's)	Legh S. Powell, Esq.	5	1 0	500	..	32·59	137	113
D Ashford	B. H. Headley, Esq.	5	1 0	190	..	28·00	136	108
D Ashford (Albert Road)	A. E. Brounger, Esq.	5	1 0	185	..	28·01	142	111
d Elham (Bladbean Farm)	Capt. T. L. Wall	5	0 9	459	..	32·47	..	108

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*)

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
KENT—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—STOUR & C.—(*con.*).								
D Dover (Martin Mill Pump. Stat.)	F. L Ball, Esq.	5	1 0	287	..	30·73	135	110
d Elham (Domel)	J. Hill, Esq.	5	1 6	459	..	34·21	..	104
D Wye (Agricultural College)	Capt. A. H. Bird	5	1 0	164	..	27·25	145	103
D Waldershare Rectory	Rev. H. Saumarez Smith	5	1 0	275	..	32·11	151	115
D Waldershare Park Gardens	J. Haggett, Esq.	8	1 0	250	33·2	30·87	130	111
D Shepherdswell (Upton Lodge)	Rutley Mowll, Esq.	5	1 0	300	..	32·81	140	109
D Shepherdswell (Montbeliard)	F. H. Bernard, Esq.	5	1 0	350	..	31·49	139	111
D Boughton Aluph (Fairlawn)	E. Simmons, Esq.	5	1 3	220	..	24·89	153	109
D Charing Pumping Station	F. L. Ball, Esq.	5	1 0	295	..	27·82	150	111
D Deal and Walmer W.W.	A. Mantle, Esq.	5	1 0	110	28·0	29·09	136	104
D Barham Pumping Station	F. L. Ball, Esq.	5	..	173	..	28·65	138	105
D Deal (Wellington Road)	Town Clerk	5	1 0	25	..	27·36	127	107
D Worth (Upton House)†	Capt. W. Elwin Napier	5	1 0	32	27·7	28·17	136	109
D Worth (Felder Lodge)	J. S. Campbell, Esq.	5	0 10	26	..	24·19	135	106
d Chilham (Lower Ensden)	F. Ivo Neame, Esq.	5	3 0	305	..	23·93	..	..
D Wingham (Margate W.W.)	Mr. J. H. Parker	5	1 0	138	28·7	24·69	144	103
D Canterbury (Medical Hall)	A. Lander, Esq.	5	1 0	39	..	24·13	131	100
D Canterbury (London Road)	Miss B. Spillett	5	1 0	66	28·7	24·64	137	109
D Canterbury (Irrigation Works)	C. Terry, Esq., C.E.	5	2 6	15	27·5	25·33	128	105
d Canterbury (Rough Common)	A. W. Wood, Esq.	5	1 0	285	..	25·81	..	102
D Ramsgate (East Cliff)	Borough Engineer	8	1 0	168	24·0	18·79	143	103
D Ramsgate (Archer House)	Miss E. F. Baker	5	1 0	75	..	19·70	132	104
D Manston Aerodrome	The Meteorological Office	8	1 0	150	..	18·96	147	98
D Birchington (Acol Farm)	C. S. Willett, Esq.	5	2 3	70	..	18·54	146	118
D Reculver	Allington Collard, Esq.	5	5 2	27	21·8	16·57	122	83
d Broadstairs (Domus)	Capt. W. B. Marling	8	1 0	60	..	19·39	..	96
D Broadstairs (Collis Court Road)	A. Watkins, Esq.	5	1 0	120	..	19·78	141	102
D St. Peter's (Hildersham House)	H. Hurd, Esq., C.E.	5	0 9	140	23·7	21·59	128	107
d Birchington (Hollydene)	W. Tomlin, Esq., Junr.	5	6 0	75	..	18·73	..	..
D Margate (Cliftonville)	Capt. J. E. Turner	5	1 0	51	22·8	16·86	124	87
3.—SWALE & C. 167 sq. mi.								
D Selling (Grove House)	F. Ivo Neame, Esq	5	1 5	330	..	26·96	124	98
D Selling (Luton)	F. Ivo Neame, Esq.	5	4 9	263	30·4	26·91	125	101
D Sittingbourne (Torry Hill)	D. Leigh Pemberton, Esq.	5	1 0	490	..	27·61	138	101
D Ospringe (Queen Court)	L. H. Finn, Esq.	8	1 3	50	..	24·99	119	101
D Ospringe (Lorenden)	L. H. Finn, Esq.	5	1 6	175	27·2	24·64	125	99
D Faversham (Portway)	C. Gordon Neame, Esq.	5	3 6	180	..	24·90	129	101
Teynham (Norton Court)	A. L. Mercer, Esq.	5	1 6	90	..	24·30	..	..
D Teynham (New Gardens)	Mrs. Honeyball	5	1 5	30	24·5	19·84	136	86
d Graveney Marshes	L. H. Finn, Esq.	8	1 0	30	..	18·24	..	..
D Milton Regis (Sewage Works)	The Surveyor	5	1 1	19	..	21·57	131	91
Herne Bay (Waterworks)	J. Roberts, Esq.	5	1 6	130	22·8	19·29	..	..
d Sheppey (Eastchurch Parsonage)	H. C. Warren, Esq.	5	1 0	100	22·9	18·79	..	..
D Sheerness	Dr. W. C. D. Hills	5	1 0	13	..	18·73	123	82
4.—MEDWAY. 506 sq. mi.								
D Bedgebury Park Gardens	Mr. H. Arnold	5	1 0	280	..	32·52	126	106
D Woodchurch (Hengherst)	W. Mitchell, Esq.	5	1 0	152	..	25·73	128	108
d Kilndown School	J. A. Ager, Esq.	5	1 6	365	..	26·75	..	99
D Scotney Castle	E. W. Hussey, Esq.	5	3 9	203	26·8	27·45	121	96
d High Halden (Middle Quarter)	B. H. Budding, Esq.	5	1 0	114	..	27·50	..	..
D Biddenden (Stede Court)	F. Johnson, Esq.	5	0 10	130	..	25·05	164	117
D Goudhurst (Gore Court)	J. A. Druce, Esq.	5	1 0	197	30·3	27·53	124	107
D Tunbridge Wells (Hawkenbury)	D. W. Horner, Esq.	5	1 6	435	..	31·15	128	101
D Tunbridge Wells (Rusthall Grange)	A. G. Robins, Esq.	5	1 0	440	..	(32·82)	(134)	(99)
D Tunbridge Wells (Calverley Park)	Dr. F. C. Linton	5	1 0	355	27·0	31·10	127	96
D Tun. Wells (The White House)	Miss Monica G. Robins	5	1 6	350	..	33·20	131	109
D Tunbridge Wells (Sherwood Park)	E. Errington-Wales, Esq.	5	1 0	475	..	30·60	118	97

† Formerly called Sandwich.

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
KENT—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—MEDWAY—(*con.*).								
D **Speldhurst Rectory**	Rev. Canon H. Masters	5	0 10	334	..	30·88	127	99
D Speldhurst (Little Court)	Late P. L. Rooper, Esq.	8	1 3	350	..	31·80	127	106
D Pembury (The Spring)	Miss A. P. Fowler	5	1 0	416	..	33·14	141	112
D **Pembury Waterworks**	W. H. Maxwell, Esq., C.E.	8	1 8	197	..	29·73	121	102
Southborough (Tentergarth)	Miss E. Powell	5	0 11	421	..	29·16	..	..
D Markbeech (Edells)	Miss M. F. Pearse	5	1 0	320	..	30·33	138	100
D **Edenbridge (Falconhurst)**	Hon. Mr. Justice Talbot	5	1 6	375	30·7	33·49	125	105
D **Edenbridge (Stonewall Park)**	E. G. B. Meade-Waldo, Esq.	5	1 1	344	..	30·11	122	101
D **Edenbridge (Gilridge)**	J. Mavrogordato, Esq.	5	1 0	400	..	32·77	135	99
d Edenbridge (Hever Castle)	Mr. A. Mc. Cutcheon	5	1 0	200	..	30·42	..	91
D Headcorn (Summerhill)	Miss B. M. Richford	5	1 0	100	..	26·58	123	102
d Pluckley (Brick Works)	Guy G. Davies, Esq.	5	1 6	112	..	24·35	..	..
D **Penshurst Place**	Lord De L'Isle and Dudley	5	1 0	120	..	32·84	140	98
D **Penshurst (Parkholt)**	J. M. Sturgess, Esq.	5	0 9	265	..	28·20	111	99
D **Tonbridge (Mabledon Park)**	J. F. W. Deacon, Esq.	5	1 0	190	..	29·28	126	94
D **Tonbridge (The Drive)**	G. J. Kimmins, Esq.	5	0 10	165	..	28·24	127	100
D **Tonbridge (Lyons)**	Dr. E. S. Cardell	5	1 0	75	..	26·13	131	100
D Hildenborough (Gailes)	E. E. Roper, Esq.	5	1 0	159	..	26·09	122	94
D **Hildenborough (Hollanden Ho.)**	C. H. Scott, Esq	8	1 0	99	..	28·02	145	103
D East Peckham (Central Stores)	W. H. Pearson, Esq.	8	7 6	50	..	24·80	129	107
D **Langley (Rumwood Court)**	Mr. W. J. Gould	5	1 9	354	..	27·40	157	106
Loose Vicarage	Rev. W. Gardner-Waterman	5	1 0	240	..	25·58	..	..
d **Harrietsham (Dun Akyune)**	C. Mackinnon, Esq.	5	1 4	400	..	25·78	..	99
D **Nettlestead (Old Quarry)**	W. Pye-English, Esq.	5	1 6	286	..	23·87	140	107
D **Otham (Synyards)**	Ambrose Boyson, Esq.	5	1 0	315	..	27·06	165	104
D Sevenoaks (River Hill) *New G*	Lt.-Col. J. M. Rogers, D.S.O.	5	1 0	500	..	28·84	120	105
D Hollingbourne (Elsfield House)	Col. A. H. W. Grubb, C.M.G., D.S.O.	5	1 4	175	..	24·12	157	107
D **Hollingbourne (Penn Court)**	S. Lucy, Esq.	5	1 1	261	..	26·82	147	108
D **Maidstone (W. W., Barming)**	C. H. Harden, Esq., C.E.	5	1 6	250	..	24·06	131	96
D **Maidstone (Brenchley Gardens)**	T. F. Bunting, Esq., C.E.	5	0 9	50	..	24·46	126	96
D **Maidstone (Mill Street)**	T. F. Bunting, Esq., C.E.	8	6 0	38	..	24·98	140	100
D **Aylesford (Forstal)**	C. H. Harden, Esq., C.E.	5	1 4	20	..	22·10	125	94
D **East Malling (Blacklands)**	Major C. E. Tristram	5	1 0	80	..	23·17	114	89
D **East Malling (Research Station)**	The Secretary	8	1 0	132	..	23·09	120	90
Maidstone (Allington Lock)	Mr. W. Smith	5	1 0	20	..	22·68	..	86
D Detling (The Croft) *New*	R. Cooke, Esq.	5	1 0	330	27·8	25·66	159	102
M Detling (Pollhill Fields)	R. Cooke, Esq.	5	1 0	553	..	(25·55)	..	..
D Chatham (Woolmans Wood)	W. Coles Finch, Esq., C.E.	5	3 0	470	..	23·19	123	90
d **Halling Pumping Station**	F. L. Ball, Esq.	5	1 0	75	..	23·46	..	97
D Chatham (Luton W.W.)	W. Coles Finch, Esq., C.E.	5	3 0	88	..	21·75	128	88
D Rainham (Motley Hill)	J. B. Harvey, Esq.	5	1 0	28	..	21·34	125	84
D Rochester (Deanery Gate)	Warwick Stunt, Esq.	5	1 0	50	..	20·16	126	84
D Rochester (Knight's Place)	Miss F. H. Pye	5	3 0	320	26·0	23·13	138	96
D Strood Waterworks (+A)	W. Law, Esq., C.E.	5	1 0	112	..	21·03	132	93
5.—THAMES—Darent & C. 256 sq. mi.								
D **Westerham Town**	Met. Water Board	5	1 0	380	..	31·44	135	105
D **Westerham Hill Pumping Stat.**	Met. Water Board	5	1 0	539	..	30·57	151	105
D **Sundridge Rectory**	Rev. C. C. Gosselin	5	1 0	280	..	28·41	124	98
D Sundridge Pumping Stn.	Met. Water Board	5	1 0	270	..	27·61	123	94
M Sevenoaks (Tonbridge Rd. Res.)	F. Vallins, Esq.	5	1 6	556	..	27·79	..	..
D Sevenoaks (Speldhurst Close)	Mrs. D. Mackinnon	5	1 0	470	..	27·67	127	96
d Sevenoaks (Knole Park)	E. Stubbs, Esq.	5	1 0	500	..	28·94	..	100
D **Tatsfield (Betsoms Hill)**	Met. Water Board	5	0 7	820	..	32·15	152	109
Seal (Oak Bank Reservoir)	F. Vallins, Esq.	8	1 0	550	..	28·08	..	..
M Seal (St. Lawrence Reservoir)	F. Vallins, Esq.	8	1 0	665	..	28·17	..	..
M Seal (Kemsing Pumping Stat.)	F. Vallins, Esq.	5	1 0	292	..	25·18	..	..

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
KENT—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
5.—THAMES—Darent & C.—(*con.*).								
D Sevenoaks (Chevening Gardens)	Mr. J. C. Sutton	5	1 0	360	..	32·24	136	102
D Knockholt (Kent Waterworks)	Met. Water Board	5	1 0	785	29·9	31·82	122	105
D Biggin Hill (Aerodrome)	The Meteorological Office	8	1 0	597	..	30·65	135	100
D Fairseat (Fairseat House)	Col. W. Pitt, C.M.G.	5	1 0	670	..	30·53	135	113
D Chelsfield (Hewitts)	W. A. Waring, Esq.	5	4 0	476	..	27·17	127	92
Keston (Forest Lodge)	W. H. Dodgson, Esq.	5	0 6	450	..	27·87	..	..
D W. Wickham (Wickham Court)	Sir Stephen Lennard, Bt.	5	1 0	300	..	30·39	113	93
D Eynsford Pumping Station	Met. Water Board	5	1 0	100	..	23·88	110	86
D Eynsford Hill	Arthur Mee, Esq.	5	1 0	358	..	24·21	129	95
D Orpington (Kent Waterworks)	Met. Water Board	5	1 0	220	..	25·95	129	90
Crockenhill (Wested Farm)	A. T. Miller, Esq.	5	1 6	331	..	23·85	..	..
D Bickley (Farrants)	Miss Chalmers	5	1 0	250	..	25·21	119	94
Bromley (Sundridge Avenue)	Dr. H. Wynne Thomas	5	1 0	200	..	23·30	..	..
D Bromley	The Borough Engineer	5	1 0	213	..	22·66	125	91
D Bromley (Plaistow Lane)	Col. E. Satterthwaite, C.B., V.D.	5	0 9	234	25·9	23·84	137	93
D Beckenham (Croydon Road)	The Surveyor	8	1 0	110	..	29·49	134	102
d Penge (Recreation Ground)	H. W. Longdin, Esq., C.E.	5	1 1	122	25·2	22·60	..	..
d Anerley (Oakfield Road)	Miss S. Stannard	5	1 5	..	..	19·01	..	..
D Chislehurst (Hawkwood)	Miss M. C Edlmann	5	1 0	300	..	22·53	130	91
Chislehurst (Holbrook Lane)	W. P. Jones, Esq.	5	1 0	325	..	22·69	..	..
D Chislehurst (Scadbury Park)	Mr. B. Orchard	5	1 0	250	..	22·10	128	93
D Swanley (Horticultural College)	Miss H. G. Mitchell	5	1 0	155	..	20·75	122	87
D Southfleet (Kent Waterworks)	Met. Water Board	5	1 0	82	..	20·81	133	79
D Wilmington (Kent Waterworks)	Met. Water Board	5	1 0	25	..	21·00	118	94
D Dartford (West Hill)	Mr. J. Taylor	5	1 3	100	..	22·07	118	91
D Dartford (Tower Road)	C. O. Hunt, Esq.	5	0 6	125	..	20·63	129	91
D Stone (City of Lond. Ment. Hsp.)	J. Gower, Esq.	5	1 0	200	..	19·45	118	89
D Dartford (Sewage Works)	The Resident Engineer	5	1 0	14	..	18·55	122	86
D Higham Waterworks	C. H. Clark, Esq.	8	1 0	141	..	22·63	140	94
D Erith (Crossness)	London County Council	14	0 6	16	..	19·33	134	81
SUSSEX. (Area, 1458 sq. mi.)								
1.—LAVANT & C. 175 sq. mi.								
D Selsey (Large Acres)	*Field* ... E. Heron Allen, Esq., F.R.S.	5	1 0	21	..	29·60	147	109
D Aldwick (Greenways)	D. S. Hancock, Esq.	5	1 0	25	..	29·90	142	105
D Bognor Regis (Waterloo Square)	The Town Clerk	8	1 0	20	25·9	31·60	148	115
D Bognor Regis (Albert Road)	W. L. Guermonprez, Esq.	8	1 0	17	..	29·29	148	114
d Chichester (Itchenor House)	Capt. A. E. Russell	5	0 10	25	..	26·68	..	100
D North Mundham Vicarage	J. Outram, Esq.	5	0 9	..	..	33·14	149	116
D Colworth (Manor Farm)	Harold W. Drewitt, Esq.	5	4 6	18	27·7	29·81	124	98
D Merston (Abelands)	Miss V. Kennard	5	0 6	24	..	33·20	139	114
D Bosham (Cobnor)	Major S. W. P. Beale	5	1 6	12	..	27·64	134	97
D Barnham (Downview Road)	P. A. Bisset, Esq.	5	1 0	20	..	30·48	150	115
D Chichester (Kingsham Farm) (K)	W. Lawson, Esq.	8	0 10	35	..	32·99	168	115
D Chichester (Westgate)	G. Ashley Tyacke, Esq.	8	1 0	40	28·7	32·18	142	111
D Chichester (West Street)	Dr. Walter Dick	5	1 0	40	..	31·01	138	106
d Chichester (County Hall)	Stanley Morris, Esq.	5	1 0	45	..	31·69	129	102
d Chichester (Oakwood House)	Mrs. Baring Du Pré	5	1 0	101	..	31·11	..	106
D Chichester (West Broyle Gdns.)	Mrs. Weller-Poley	5	1 4	107	..	32·33	127	109
D Emsworth (West Bourne)	Rev. L. B. Birkett	5	1 0	30	30·9	31·09	151	119
D Boxgrove (Priory Farm)	S. J. K. Eames, Esq.	5	1 4	100	..	32·99	126	109
D Funtington House	J. A. Greenwood, Esq	5	1 0	95	..	32·71	142	112
D West Stoke Rectory	Rev. Preb. W. F. Shaw	5	1 0	176	..	33·16	128	109
D Chichester (Goodwood Gardens)	Duke of Richmond & Gordon	5	1 3	133	..	36·84	147	117
D Emsworth (Stansted Park)	Mr. T. E. Tomalin	5	2 6	140	..	36·10	160	127
D Emsworth (Watergate House)	W. M. Christy, Esq.	5	1 0	222	..	35·27	147	114
D West Dean Park	Mr. W. H. Smith	5	1 0	190	..	39·54	128	110
D Chilgrove House	E. L. Woods, Esq.	5	1 0	266	..	37·41	141	109
D Compton (Compton House)	Miss K. B. Langdale	5	1 0	263	36·6	37·18	142	121

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
SUSSEX—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—ARUN. 285 sq. mi.								
D Littlehampton (Met. Station)	Thomas Benson, Esq.	5	1 0	27	..	29·99	139	108
D Rustington (Bracondale Nurs.)	J. Muir, Esq.	5	0 10	30	..	31·85	126	102
D Lyminster Vicarage	Rev. Dr. S. P. Duval	5	1 0	20	..	29·22	139	106
D Arundel (Cross Bush)	Miss M. Orme	5	1 3	150	..	33·49	151	115
d Patching Farm	Michael Drewitt, Esq.	5	1 0	180	30·8	35·23	130	108
Harting (Down Place)	R. G. Blackwell, Esq.	5	1 2	401	..	40·64	128	107
D Storrington Rectory	Mrs. Faithfull	5	1 1	..	..	37·94	138	105
d Pulborough (Nutbourne Manor)	H. M. Baker, Esq.	5	..	100	..	32·61	..	..
D Pulborough (Codmore Hill)	Rev. C. Ash	5	2 0	165	..	37·84	151	124
D Fittleworth Rectory	Rev. A. C. Lucey	5	1 9	135	..	34·41	127	106
d Selham (Selham House)	C. C. Lacaita, Esq.	5	1 0	115	..	32·48	..	88
D Petworth Park Gardens	Lord Leconfield	5	1 0	182	..	36·04	143	106
D Tillington (River House)	Hon. Lady Cunliffe, C.B.E.	5	1 0	230	..	30·16?	120	97
D Tillington (Westmoor)	Mrs. Randall	5	1 0	200	..	33·28	131	113
Midhurst (Fairview)	Gilbert Eames, Esq.	5	1 0	..	..	34·87	132	109
d Billingshurst (The Nook)	Chas. F. Rilot, Esq.	5	1 0	120	..	31·28	..	..
D Kirdford (Hills Green)	L. Baker, Esq.	5	1 0	150	..	28·93	128	100
D Liss (Hill Brow)	F. W. Beckford, Esq.	5	1 0	500	..	36·98	152	110
D Fernhurst (Ashurst)	Mr. T. Faulkner	5	1 0	280	..	(35·17)	..	..
D Fernhurst (Hill Farm)	J. King, Esq.	5	0 9	426	..	36·85	128	107
D Fernhurst (Blackdown House)	Lady Philipson Stow	5	1 0	550	..	34·59	129	107
D Lower Beeding (The Warren)	Leicester M. Reed, Esq. ..	5	0 10	430	..	38·28	119	102
D Horsham (Christ's Hospital)	Major Gabriel Green, M.C..	8	1 3	160	..	31·48	121	95
D Horsham (Sewage P.S.)	C. G. Atkinson, Esq.	8	1 0	188	..	32·09	136	107
D Horsham (Wimblehurst)	Miss E. M. Allcard	5	1 0	195	30·0	31·64	133	106
d Horsham (Dunedin)	A. C. Holland, Esq.	5	1 0	220	..	33·70	..	105
D Rusper (The Nunnery)	Sir Cecil J.B. Hurst, G.C.M.G.	5	1 6	260	..	32·74	131	110
3.—ADUR & C. 237 sq. mi.								
D Rottingdean School	Mr. T. A. Sandalls	5	1 0	120	..	30·82	142	119
D Rottingdean (Hillside)	AdmiralH. J.L.Clarke,C.B.E.	5	1 0	60	..	30·87	135	112
D Worthing (Beech House Pk.)(+A)	Dr. R. H. Wilshaw	8	1 0	35	27·5	29·71	134	104
D Brighton (Old Steyne)	The Medical Officer of Health	5	1 0	32	28·1	30·25	135	113
D Portslade (Midways)	E. C. Smith, Esq.	5	1 0	30	..	35·49	143	115
D Hove (Park View)	Chas. Modlen, Esq.	5	0 11	145	..	33·66	138	109
D Brighton (Dyke Road)	R. A. Penney, Esq.	5	1 0	240	..	32·56	138	111
D Lancing College	The Headmaster	5	1 3	120	..	31·77	135	109
D Brighton W.W. (Goldstone Bot.)	A. B. Cathcart, Esq., C.E..	8	1 0	142	..	31·85	136	103
D Brighton W.W. (Lewes Road)	A. B. Cathcart, Esq., C.E..	8	1 0	140	29·9	35·27	142	114
D Brighton W.W. (Shoreham)	A. B. Cathcart, Esq., C.E..	8	1 8	12	..	32·58	148	112
D Brighton W.W. (Mile Oak)	A. B. Cathcart, Esq., C.E..	8	1 3	166	..	32·86	140	109
D Brighton W.W. (Race Hill Res.)	A. B. Cathcart, Esq., C.E..	8	1 3	469	..	35·84	142	116
D Falmer (Brighton W.W.)	A. B. Cathcart, Esq., C.E..	8	1 4	202	..	34·17	156	110
D Patcham (Brighton W.W.)	A. B. Cathcart, Esq., C.E..	5	1 1	206	..	35·11	148	113
D Bramber (Burletts)	Hatton G. Sugden, Esq. ..	5	1 0	75	..	37·01	154	112
D Washington Vicarage	Rev. A. H. S. Pattrick ...	5	1 0	251	..	39·01	139	107
D Ditchling (Neston)	J. Brown, Esq.	5	1 1	170	..	41·27	135	113
D Hassocks (Wilmington Lodge)	C. T. Agar, Esq.	5	1 0	200	..	39·09	137	109
D Hassocks (The Croft)	Harold Taylor, Esq.	5	1 0	200	..	41·44	132	111
D Keymer	J. Francis Jupp, Esq., C.E.	5	1 0	..	..	39·85	131	112
D Hurstpierpoint (Netherby)	R. S. Sandford, Esq.	5	1 1	187	..	35·40	130	103
D Steyning (Ashurst Rectory)	Rev. R. P. E. Richards....	5	1 0	50	..	32·79	138	108
D Burgess Hill (Donisthorpe)	Mrs. A. Malden	5	1 6	190	..	35·29	138	104
D West Grinstead (Danetold)	Miss T. Gaisford	5	1 0	130	..	35·72	128	103
D Cuckfield (Henmead Hall)	Mrs. Maxwell Campbell ..	5	3 0	365	..	36·68	126	102
D Billingshurst (Duncan's Farm)	Miss Edith Beck	5	1 0	130	..	32·96	138	114
D Slinfold (Elmhurst Farm)	Elmhurst Fmg. & Trdg. Co.	5	0 10	200	..	30·87	138	105
4.—OUSE. 224 sq. mi.								
D Seaford (Bowden House School)	J. F. Thomas, Esq.	5	1 0	190	..	30·53	138	109
D Seaford (Newlands)	T. Davys Manning, Esq. ..	5	1 0	100	..	31·12	130	106
D Newhaven(PoveryBottomWW)	F. B. Lumsden, Esq.	8	1 0	51	..	32·67	137	109

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SUSSEX—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—OUSE—(*con.*).								
D Selmeston Vicarage	Rev. F. S. Morgan	5	1 0	153	..	32·55	134	103
D Lewes W. W. (Kingston)	J. T. P. Johnston, Esq.	8	1 3	13	..	37·98	171	124
D Ringmer (Park House)	G. Elliott Sealy, Esq.	5	1 0	100	..	30·86	141	103
D Barcombe (The Gables)	L. S. F. Woodhead, Esq.	8	1 0	100	..	38·78	141	110
d East Hoathly (Halland Park)	R. Shanks, Esq.	5	1 1	325	..	32·44	..	..
Framfield (High Cross)	Maj. R. L. Thornton, C.B.E.	5	1 0	195	..	30·47	..	..
d Newick (Holly Grove)	Major A. K. Slessor	5	0 10	150	..	(33·38)	..	..
D Haywards Heath (Gower Road)	Mrs. J. E. Shirley	5	3 4	242	..	31·42 ?	133	100
D Haywards H. (Paddockhall Rd.)	L. E. Hervey, Esq.	5	1 0	260	..	35·79	142	107
Buxted (Strawberry Hall)	C. Rintoul, Esq.	5	1 0	180	..	32·82	128	..
D Mayfield (Five Ashes)	Miss Emily Aston	5	1 1	300	..	31·04	145	102
D Lindfield (The Common)	R. H. Robertson, Esq.	5	1 6	250	..	35·37	129	107
D Uckfield (Fairwarp)	Col. A. E. Barchard	5	0 10	475	..	36·15	141	114
Oldlands Hall	(R) Sir F. Eckstein, Bart.	8	3 0	400	..	39·75	140	110
d Horsted Keynes (Holy Well P.S.)	F. Martin, Esq., C.E.	8	1 9	124	..	33·04	..	108
D Ardingly (Lywood House)	G. Forrester Scott, Esq.	5	0 9	240	..	34·42	146	106
D Ardingly (Wakehurst Place)	G. W. E. Loder, Esq.	8	1 3	437	..	39·50	149	107
D Horsted Keynes (Birchgrove)	Miss G. C. Price-Davies	5	1 0	400	..	33·24	146	103
D Balcombe (Lullings)	Mrs. M. Holland	5	1 0	348	..	38·83	139	103
D Balcombe (The Gables)	Mr. G. J. Warren	8	1 3	358	..	39·75	136	117
D Balcombe (Stockcroft)	R. Newton, Esq.	5	1 1	341	..	37·89	140	105
D Balcombe (Waterworks)	F. Martin, Esq., C.E.	8	1 0	471	..	36·18	121	106
D Balcombe (Highley Manor)	Mr. B. T. Brooks	8	1 6	420	..	35·29	139	112
D West Hoathly (Stonelands)	J. Godwin King, Esq.	5	1 0	450	..	36·40	136	109
5.—CUCKMERE & C. 189 sq. mi.								
D Eastbourne (West Lodge)	Miss E. K. Beauford	5	1 0	120	..	31·81	142	110
D Eastbourne (Wilmington Sq.) (+A)	Dr. W. G. Willoughby	5	1 0	35	30·7	31·92	139	110
D Eastbourne (Motcombe Gdns) (A)	Major L. Roseveare, C.E.	11	1 7	59	..	31·69	138	111
D Eastbourne (Arundel Road)	Miss G. J. Woodd	8	1 6	86	..	32·95	139	112
D Friston	A. Wilkins, Esq.	8	1 0	104	..	31·09	154	118
D Jevington	A. Wilkins, Esq.	8	1 0	274	..	31·96	132	114
D Litlington	A. Wilkins, Esq.	8	1 0	19	..	31·64	124	107
D Willingdon Sewage Farm	R. W. Fovargue, Esq.	5	1 0	24	..	32·62	122	108
D Pevensey Pumping Station	R. W. Fovargue, Esq.	5	1 0	12	..	29·74	133	106
D Pevensey Bay Pumping Station	R. W. Fovargue, Esq.	5	1 0	7	..	29·04	131	105
D Bexhill (Egerton Park)	H. J. Sargent, Esq.	8	1 0	12	..	29·69	135	116
D St. Leonards (Gensing Gardens)	W. Ruskin Butterfield, Esq.	8	1 0	178	28·4	31·59	177	115
D St. Leonards (Thorndene)	Miss Agnes E. Tait	5	1 0	190	..	30·35	135	107
D Hailsham (North Street)	R. Matthews, Esq.	5	1 0	105	..	31·08	146	112
d Hurstmonceaux Place	H. A. James, Esq.	5	1 1	83	..	27·52 ?	..	97
D Hailsham (Magham Down)	E. M. Bear, Esq.	5	1 0	90	..	30·14	136	106
D Hastings (Newgate)	(R) S. Little, Esq., C.E.	8	5 6	240	..	32·01	139	110
D Hastings (Halton Reservoir)	S. Little, Esq., C.E.	5	1 0	300	..	31·53	127	114
D Hastings (Fairlight Reservoir)	S. Little, Esq., C.E.	5	1 0	523	..	30·94	126	118
d Battle (Forewood W.W.)	S. Little, Esq., C.E.	5	1 0	46	..	30·06	128	105
D Battle (Campfield)	Lt.-Col. G. A. Yool, D.S.O.	5	1 0	179	..	32·63	150	117
D Hellingly (Burlow)	G. Berry Hamlin, Esq.	5	1 0	209	..	31·69	151	104
D Horeham Road (Coxlow)	Miss P. C. Harrison	5	1 0	260	32·2	31·30	151	105
D Horeham Rd. (Hollycroft Cott.)	J. Hamlin, Esq.	5	1 0	300	35·2	34·68	141	111
d Horeham Road (Holmwood)	Rev. G. T. Maw	5	1 0	380	..	33·95	..	104
D Heathfield (The White Cottage)	J. F. Leigh Clare, Esq.	5	1 0	500	..	30·71	134	105
6.—ROTHER. 194 sq. mi.								
D Battle (The White Cottage)	E. J. Morgan, Esq.	5	1 0	320	..	33·41	158	119
d Brede Pumping Station	S. Little, Esq., C.E.	8	1 0	37	..	30·55	..	102
D Battle (Netherfield)	Thos. W. C. Terry, Esq.	5	1 0	420	..	34·55	142	112
D Udimore (The Wick)	Major R. P. Mair	8	1 0	92	28·7	30·27	127	106
D Rye (The Point)	W. Gay, Esq.	5	1 0	120	..	29·08	142	113
D Rye (Fairfield House)	late W. Dawes, Esq.	5	1 1	145	..	27·36	137	110
D Brightling Park	T. P. Tew, Esq.	5	1 0	545	..	37·18	143	110
D Peasmarsh (Woodside)	A. W. Rickards, Esq.	5	0 8	100	..	31·85	135	119

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SUSSEX—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
6.—ROTHER—(*con.*).								
D Beckley (Little Harmers)	B. E. de N. Ramus, Esq.	5	1 0	160	..	33·58	172	132
D Heathfield (Barklye)	Mr. J. Masson	5	1 0	500	..	37·25	121	109
D Northiam (Great Dixter)	N. Lloyd, Esq., O.B.E.	8	1 0	209	..	30·54	125	109
D Ticehurst (Stonegate)	W. J. Wheeler, Esq.	5	1 0	230	..	34·69	158	110
7.—MEDWAY. 117 sq. mi.								
D Rotherfield (Horsegrove Fm.)	F. W. Shaw, Esq.	5	1 0	528	..	36·30	131	101
D Crowborough (Tudor Lodge)	F. Holroyd, Esq.	5	1 0	620	..	38·11	146	112
D Crowborough (Jarvis Brook)	Crowborough Water Co.	5	1 0	325	..	37·82	134	108
d Crowborough (Uckfield Lodge)	Mrs. Driberg	8	1 0	796	36·0	(38·50)	(130)	(113)
D Crowborough (The Manse)	Rev. F. J. Briggs	5	1 0	730	..	40·16	137	110
D Wadhurst (Lower Cousley Wd)	late F. Wilkin, Esq.	5	1 0	416	..	28·31	141	115
d Forest Row (Wych Cross Place)	D.W.Freshfield,Esq.,D.C.L.	5	1 0	600	..	37·09	..	101
D Forest Row (Hindleap Lodge)	Mr. A. Adam	5	1 6	620	..	37·98	121	107
D Forest Row(Coleman's Hatch Vic)	Rev. H. C. B. Foyster	5	1 2	300	..	36·64	153	110
Forest Row (Charlwood Farm)	A. Hoare, Esq.	5	2 0	350	..	40·23	..	111
d E. Grinstead (Brambletye)	Major G. Larnach-Nevill	5	1 0	420	..	36·32	..	103
D Frant (Hazelhurst)	J. H. A. Love, Esq.	5	1 0	450	..	34·51	127	100
D Frant (Henley House)	Rev. E. Malden	5	1 6	440	32·3	34·12	148	100
d Frant (Eridge Castle)	Mr. A. Wilson	5	1 0	400	..	33·81	..	110
d Frant (Highfield)	H. S. Eeles, Esq.	5	1 0	413	..	33·14	..	..
D Groombridge (Crossways)	Capt. D. P. A. Gray	5	1 0	260	..	34·05	134	101
d Hartfield (Bolebroke)	Percy Mann, Esq.	5	1 0	150	..	33·72	..	104
D Crawley Down (The Grange)	T. H. W. Buckley, Esq.	5	0 9	430	..	36·61	138	102
D E. Grinstead (Brockhurst Obsy)	W. S. Franks, Esq.	8	1 0	435	32·9	35·84	153	106
D Wadhurst (Downgate)	Rev. E. P. Gatty	5	1 6	300	..	34·11	121	106
8.—THAMES—Mole. 27 sq. mi.								
D Turners Hill (Hill House)	Miss R. M. Ravenshaw	8	1 6	477	..	38·38	126	106
D Worth (Worth Lodge)	C. W. Nix, Esq.	5	1 0	340	31·9	37·03	150	107
d Crawley (The Beeches)	N. Longley, Esq.	8	1 0	220	..	36·72	..	102
9.—THAMES—Wey. 10 sq. mi.								
D Milland House	S. Thompson, Esq.	5	1 0	425	..	31·63	130	112
d Liphook (Ripsley)	W. D. Bosanquet, Esq.	5	1 0	400	..	33·31	..	..
HAMPSHIRE. (Area 1,622 sq. mi.)								
1.—ISLE OF WIGHT. 150 sq. mi.								
D St. Catherine's Point	The Chief Officer	8	1 8	150	..	29·09	138	107
D Blackgang (H.M. Coastguard)	Mr. H. W. Hawkes	5	1 0	420	..	29·10	124	99
D Ventnor (Flint Cottage)	J. S. Ineson, Esq.	5	1 0	99	..	29·62	145	106
D Ventnor (Royal National Hos.)	Miss N. G. Abercrombie	5	1 0	59	28·9	31·30	152	109
D Ventnor (Fern Bank)	A. W. Jolliffe, Esq.	5	1 5	250	..	32·16	154	112
D Godshill (Daffodil Valley Farm)	S. F. Lunniss, Esq.	5	1 0	195	..	35·01	141	107
D Shanklin (Pomona Road)	The Town Surveyor	8	1 0	199	..	35·25	144	110
d Brighstone Rectory	Rev. E. W. Silver	5	1 0	140	..	31·83	..	106
d Brighstone (Pitt Place)	A. A. H. Wykeham, Esq.	5	1 7	200	..	29·07	..	97
D Sandown (Sandham Gds.)	The Surveyor	8	1 0	30	..	29·42	170	114
D The Needles (Golf Club)	Mrs. G. E. Newnham	5	1 0	300	..	28·87	145	100
D Totland Bay (Aston House)	J. Dover, Esq.	8	1 0	140	28·5	30·61	138	103
D Freshwater (Pumping Station)	J. Dover, Esq.	8	1 0	10	..	30·46	138	109
D Newport (The Mall)	J. F. Jackson, Esq.	5	1 0	48	..	35·41	146	106
D Ryde (Perivale)	Major E. C. Murray	5	1 3	193	..	32·89	151	107
D Ryde (Buckland Grange)	Lt.-Col. Sir Hugh Daly	5	1 0	90	..	31·85	192	111
D Ryde (Esplanade Gardens)	B. F. Holness, Esq., C.E.	5	1 9	12	..	28·95	144	101
D Wootton (Fernhill)	Major C. G. Brodie, M.C.	8	1 0	118	..	33·40	143	103
D Wootton (Oak Lawn)	R. W. Hutton, Esq.	5	0 9	80	..	33·40	142	111
D Cowes W.W. (Broadfields)	J. W. Webster, Esq., C.E.	5	1 0	161	..	30·65	134	100
D Osborne	Maj.-Gen. Sir S.G.Goise-Moores, K.C.B.	5	1 0	127	..	35·64	156	76
D East Cowes (Spring Hill)	Sir George Shedden	5	1 0	123	..	29·24	142	98

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*).

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HAMPSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—STOUR. 32 sq. mi.								
D Bournemouth (Priory Road)	D. S. Gray, Esq.	5	1 0	95	..	28·46	141	109
D Bournemouth (East Cliff)	Dr. F. G. Penrose	8	1 0	120	..	25·80	152	106
D Bournemouth (Rodney House)	S. Hyla Greves, Esq.	5	1 0	145	..	29·45	142	106
D Bournemouth (Vale View)	C. Dales, Esq.	5	1 0	145	31·5	32·60	151	110
D Bournemouth (East Avenue)	J. E. Hewitt, Esq.	5	0 9	142	..	29·28	135	106
D Bournemouth (Talbot Woods)	H. Constantine, Esq.	5	1 0	110	..	29·40	138	105
D Bournemouth (Howard Road)	E. D. Shawfield, Esq.	5	1 0	117	..	31·14	143	105
D Christchurch (Air Compressing Sta.)	Borough Surveyor	5	0 10	6	..	27·79	125	103
D Christchurch (Heron Court)	The Earl of Malmesbury	5	1 0	25	..	34·43	124	114
D Ringwood (Athol Lodge)*	S. O. Ferry, Esq.	5	1 0	60	..	27·88	147	96
D Ringwood (Heather Close)	J. F. Turner, Esq.	8	1 0	62	..	32·97	159	115
3.—EAST AVON & C. 114 sq. mi.								
D Christchurch (Harrow Lodge)	R. C. Bacon, Esq.	8	1 0	135	..	33·95	158	110
D Ringwood (Bisterne)	Major J. D. Mills	8	1 2	45	..	32·58	151	115
D Ringwood (Ashley)	Miss M. E. Williams	5	1 0	100	..	35·30	165	115
D Ringwood (Crow Hill)	Mrs. H. F. Rawstorne	5	1 0	250	..	31·18	150	103
d Ringwood (Grey Friars)	R. W. Christy, Esq.	5	1 0	50	..	29·45	..	94
D Fordingbridge (Cuckoo Hill)	Heywood Sumner, Esq.	5	1 0	150	..	35·51	156	109
D Fordingbridge (Dockens)	E. W. Poore, Esq.	8	1 0	140	..	35·65	144	103
D Fordingbridge (Oaklands)	S. B. Rake, Esq.	8	1 0	135	31·7	33·28	156	100
4.—TEST & SOLENT. 551 sq. mi.								
D Milford-on-Sea (Salt Grass)	A. C. G. Heygate, Esq.	5	1 0	6	..	30·29	131	103
D Lymington (The Salterns)	P. A. Ouvry, Esq.	5	1 0	4	..	28·99	140	102
D Lymington (Woodmancote)	Major G. M. Harding	5	1 0	70	..	31·90	139	101
D Sway (Gordleton)	W. F. Wright, Esq.	5	1 6	105	..	32·71	143	101
D Sway (Sway Wood)	J. Dixon, Esq.	5	1 0	150	..	35·16	131	107
D Boldre (Battramsley Close)	Dr. H. A. Des Voeux	5	0 7	119	..	34·95	152	107
D Brockenhurst (Weirs End)	Col. C. Mansel-Jones, V.C.	5	1 0	45	..	34·18	134	114
D Calshot (Seaplane Station)(+A)	The Meteorological Office	8	1 0	12	25·5	26·03	135	102
D Beaulieu (Moonhills Gate)	J. E. Hutton, Esq.	5	1 0	130	..	32·20	149	108
D Burley (Sandys)	G. Mason, Esq.	5	1 0	150	..	32·26	144	114
d Fawley (Cadland Park)	Mr. L. Smith	8	4 6	52	..	(30·30)	..	..
D Lyndhurst (Deerhurst)	Ralph Paget, Esq.	5	1 6	250	..	36·51	120	103
D Lyndhurst (Allum Green)	Miss S. R. Fenwick	5	1 0	125	..	37·41	140	105
D Hythe (Dibden House)	Lt.-Col. H. W. Kettlewell	5	1 0	85	..	33·64	141	105
D Totton (Shorne Hill)	Capt. J. H. W. Rennie	5	1 0	130	..	36·46	156	112
D Southampton (East Park)	Col. E. M. Jack, R.E.	8	1 0	66	30·9	33·12	145	110
D Southampton (Shirley)	S. G. Stanton, Esq., C.E.	5	1 0	70	..	31·55	131	102
M Southampton Common Res.	E. C. Rodda, Esq., C.E.	5	1 0	193	..	30·10	..	..
D Romsey (Embley Gardens)	J. J. Crosfield, Esq.	5	1 0	130	..	32·27	136	103
D Romsey (Harefield)	Lt.-Col. W. J. Langford	5	1 0	120	..	32·03	132	110
d Melchet Court	Mr. W. Petty	5	3 6	207	..	32·11	..	..
D Romsey (Timsbury Manor)	A. R. Wilson-Wood, Esq.	5	0 10	75	..	29·41	127	99
D Romsey (Timsbury)	E. C. Rodda, Esq., C.E.	8	1 8	96	..	29·66	134	92
D Horsebridge (Bossington House)	Mrs. Mansell-Jones	8	0 9	98	..	32·16	143	106
D Stockbridge (Houghton Lodge)	Mr. G. Morris	5	1 0	112	..	29·94	110	101
d Crawley (Northwood Park)	N. Hopkin, Esq.	5	1 0	450	..	33·87	..	..
D Crawley (Chilbolton Down)	R. Hargreaves, Esq.	8	1 2	350	..	30·81	138	99
D Micheldever (School House)	W. Geo. Gould, Esq.	5	1 0	280	..	29·19	139	100
D Wonston (Upton House)	H. J. Gardiner, Esq.	5	1 0	229	..	30·86	145	102
D Andover (Abbots Ann)	Miss E. E. de Paravicini	5	0 10	220	..	28·58	152	98
D Andover (Sewage Works)	W. C. Jerome, Esq.	8	1 0	..	..	28·67	118	94
D Andover (Hatherden)	E. E. Leader, Esq.	5	1 0	350	..	28·49	133	107
D Fyfield Rectory	Rev. E. K. R. Reynolds	5	1 3	255	..	25·14	132	99
D St. Mary Bourne (Bournside)	Prof. C. V. Boys, F.R.S.	5	1 0	300	..	27·25	140	106
D St. Mary Bourne (Spring Hill)	Mrs. H. A. Boys	5	1 4	300	..	26·08	110	96
D Worting (Manydown Park) . (R)	Col. A. S. Bates, D.S.O.	8	4 0	415	..	33·61	136	105

* Formerly called St. Leonards.

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*).

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HAMPSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—TEST & SOLENT—(*con.*).								
Hurstbourne Tarrant (Rookery)	R. E. C. Burder, Esq.	5	1 0	331	..	29·68	..	..
D Whitchurch (Dunley Manor)	..Sir Alfred Herbert	5	1 0	500	..	29·28	135	110
D Vernham Dean (Rowe House)	.Mrs. E. H. Gamble	5	1 0	620	..	32·97	141	109
5.—ITCHEN & SPITHEAD. 422 sq. mi.								
D Alverstoke (Monckton House)	..Major J. Blake	5	1 3	15	..	29·49	147	110
D Alverstoke (Glencoe)	.....J. G. Thomas, Esq.....	5	1 3	20	..	27·73	148	111
d Portsmouth (Eastney)	.....R. J. Jenkins, Esq., C.E....	8	1 0	20	..	21·61?	..	92
D Portsmouth (Victoria Park)	...Dr. A. Mearns Fraser	5	1 0	15	27·7	28·02	137	102
D Hayling Island (Richmond Ho.)	E. S. McEuen, Esq.	5	1 2	16	..	26·24	137	102
South Hayling (C. of E. School)	H. J. Earney, Esq.	5	1 6	10	..	25·99	137	93
D Lee-on-Solent(EdinburghHoSch)	Trevor J. Tatham, Esq....	5	1 0	15	..	26·60	125	98
d Hook-cum-Warsash	.....E. M. Biggs, Esq.	5	1 0	50	..	28·62	..	92
d Portchester (Noel Cottage)	.....Miss R. M. Frost	5	1 0	10	..	26·19	..	..
D Farlington (Pumping Station) c	D. Halton Thomson, Esq..	5	1 0	72	..	27·42	136	103
D Farlington (Filter Works)	.....D. Halton Thomson, Esq..	8	1 0	157	..	27·46	148	103
D Havant (Portsmouth W.W.)	...D. Halton Thomson, Esq.	5	1 0	25	26·7	28·98	138	106
D Havant (Warblington)	.....F. D. Crossley, Esq.	8	1 0	22	..	28·64	139	104
D Havant (Wade Court)	.....W. E. Sotherby, Esq.	8	1 0	17	..	28·01	115	100
d Fareham (Fareham House)	...W. S. Stevenson, Esq.,M.D.	5	1 6	30	..	29·49	..	96
D Fareham (Roche Court)	.....Admiral Sir W. De Salis ..	5	1 0	103	..	32·79	133	105
D Netley (Lake House)	.....Miss Pennington	8	1 0	54	..	30·99	146	106
Waterlooville	.....Mrs. D. R. McLaren	9	0 10	173	..	(29·29)	..	..
D Cowplain (Forest View)	.....H. C. Pearson, Esq.	5	5 0	222	..	28·84	140	102
D Wickham (The Lower House)	..M.-Gn.SirC.H.Powell,K.C.B.	5	1 4	100	..	30·16	121	100
D Wickham (Park Place)	.....(R) Major A. F. Clifford	8	1 0	150	..	29·41	125	103
D Southampton (Portswood)	.....S. G. Stanton, Esq., C.E...	5	1 9	10	..	29·57	132	108
Botley (Brook House)	.....Mrs. Beckett Powell	5	1 0	45	..	33·60	..	..
D Botley (Botley Hill)	.....Lady Jenkyns	5	1 6	36	..	31·91	134	107
Botley (Uplands Farm)	.....Wilmot H. Yates, Esq.....	5	1 0	60	..	34·98	138	105
D Curdridge (Kitnocks House)	..Major C. F. Randolph	5	1 0	185	..	30·75	161	112
D Swanmore (Holywell House)	..Mrs. M. Portal	5	1 6	175	..	31·40	134	115
D Soberton (Mislingford)	.....E. T. Hildred, Esq., C.E...	5	1 0	136	..	32·51	130	104
D West End (Oaklands)	.....Capt. P. C. Pearson, R.N.	5	1 0	45	..	32·82	140	105
D Bishops Waltham (Park Ho.)	..A. F. Hardy, Esq.....	5	1 3	170	..	30·66	135	100
D Swanmore House	.....W. H. Myers, Esq.....	5	1 0	390	..	34·83	122	103
D Droxford (Uplands)	.....Miss A. M. Bridge.....	5	1 0	279	..	37·61	160	115
D Droxford (Fairfield House)	....H. Hamilton Bridge, Esq.	5	0 9	254	..	35·33	150	112
D Petersfield (Ditcham Park)	....C. J. P. Cave, Esq., J.P...	8	1 0	555	..	37·15	150	111
D Otterbourne W.W.	.....E. C. Rodda, Esq., C.E....	5	1 0	113	..	31·49	138	103
D Owslebury Vicarage	.....Rev. A. E. Briggs	5	1 1	376	..	30·48	137	105
D Twyford (Pumping Station)	...E. C. Rodda, Esq., C.E. ..	8	1 9	139	..	33·69	134	101
D Twyford (Mallards Close)	.....G. R. Marsh, Esq.	5	1 0	153	..	33·04	147	105
East Meon (Burnside)	.....H. A. Gilmour, Esq.	5	1 5	..	..	35·43	..	..
D Winchester (Shawford)	.....J. A. Rooke, Esq.	5	1 0	250	..	32·85	138	101
D Hursley Park	..... (R) Sir G. A. Cooper, Bart. ...	10	1 6	240	..	26·63	134	98
D Compton (Kennington)	.....J. Durst, Esq.	5	1 1	250	..	31·35	132	102
d Compton (Compton Close)	....A. M. Heathcote, Esq.	5	0 10	230	..	31·34	..	..
D West Meon (Westwood)	.....Major G. E. Galbraith	5	1 5	470	..	38·89	153	111
w Kilmeston Manor	.....W. J. Heathcote, Esq	5	1 0	323	..	35·69	..	..
Petersfield (Broadhanger)	.....Mrs. R. M. Caulfield	5	1 0	730	..	37·68	..	..
D Winchester (St. Cross)	.....G. M. Mathews, Esq.	5	1 0	35	..	31·69	127	96
D Winchester (High Street)	.....Kenneth E.N.Williams,Esq.	5	1 0	200	..	31·53	128	98
D Winchester (East Hill)	.....Mrs. E. Wilde	5	1 0	256	..	27·10	149	101
D West Tisted Manor	.....Capt. Nelson Zambra, M.C.	5	1 3	650	..	37·60	139	93
D East Tisted (Rotherfield Park)	.Capt. J. B. Scott	5	1 0	550	..	38·97	137	115
D Alresford(Perin'sGrammarSch.)	G. T. McKay, Esq., M.Sc...	5	1 0	264	..	34·70	128	98

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HAMPSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
5.—ITCHEN & SPITHEAD—(*con.*).								
D Itchen Abbas (Chilland)	W. J. Arnold, Esq.	5	1 3	200	32·7	30·46	157	104
D Old Alresford (The Gables)	A. E. Broad, Esq.	5	1 0	300	..	32·48	125	102
D Worthy Down (Aerodrome) (+A)	Meteorological Office	8	1 0	273	..	33·10	139	99
d Preston-Candover	H. Aris, Esq.	5	1 0	350	..	29·62	..	81
6.—ARUN. 32 sq. mi.								
D Petersfield (Weston)	Capt. P. W. Seward	5	1 0	330	..	38·83	121	112
D Petersfield (Tilmore)	L. J. Tatham, Esq.	5	1 0	250	..	34·73	139	112
D Petersfield (Stoner Hill) .. (+A)	C. J. P. Cave, Esq., J.P.	5	1 0	748	..	39·51	144	119
D Liss (Easton)		5	1 0	500	..	35·67	141	111
D Liss (Heathmount)	R. A. Bosanquet, Esq.	5	1 3	490	..	34·76	132	100
D Liss (Kippences)	Rev. W. A. H. Thorold	5	0 9	250	..	35·25	129	104
D Liss (Hawklev Hurst)	T. Clive Davies, Esq.	5	0 11	422	..	39·07	162	114
D Greatham (Manor House)	Miss I. L. Coryton	5	1 0	250	..	34·15	125	118
D Greatham (Le Court)	Sir Heath Harrison, Bart.	5	0 9	350	..	37·34	140	110
7.—THAMES—Wey. 92 sq. mi.								
D Newton Valence Vicarage	Rev. A. C. Maclachlan	5	1 0	586	..	35·44	153	111
D Newton Valence (Shotters)	Major W. H. Chawner	5	1 2	600	..	34·27	144	109
D Newton Valence Place	(R) Rear-Adm. E. Jervoise, C.B.E.	8	1 5	615	..	34·17	153	104
D Selborne (The Wakes)	Mrs. Bibby	5	1 0	400	..	38·56	144	109
D Grayshott	Mrs. Lyndon	5	1 0	661	33·2	35·58	146	106
Headley (Hartfield)	Sir S. Renshaw, Bart.	5	1 0	280	..	30·27	..	..
D Alice Holt Forest	Office of Woods	8	1 0	264	..	32·12	136	104
D Upper Froyle	Lendon Bell, Esq.	5	0 11	360	..	32·56	117	101
8.—THAMES—Loddon. 164 sq. mi.								
d Swainshill	S. G. Weller, Esq.	5	3 0	..	..	31·94	..	92
D Long Sutton (Agric. Coll.)	The Warden	5	1 0	479	..	30·53	120	106
D South Warnborough (Vine Cot.)	Mrs. Gawne	5	1 0	416	..	28·69	106	90
D Upton Grey (Hoddington Ho.)	Lord Basing	5	1 0	378	..	30·39	115	101
D Basingstoke (Upton Grey Ho.)	G. W. Hayes, Esq.	5	1 0	400	..	30·53	133	110
D Aldershot (Sewage Works)	Dr. G. W. Routley	5	1 0	231	..	26·45	135	98
D Greywell (Pumping Station)	S. G. Weller, Esq.	5	1 0	258	..	31·19	156	104
D Hook (Nately Hatch)	R. C. Mallock, Esq.	5	1 0	328	..	29·22	132	99
D Sherborne St. John	Rear-Admiral A. S. Lafoné	5	1 0	260	29·0	25·28	128	98
D Farnborough School	R. A. Ingram, Esq.	5	1 0	250	..	26·43	126	98
d Hartley Wintney (Ferney Close)	A. E. Du Buisson, Esq.	5	0 11	251	..	27·46	..	..
D Hartley Wintney Council Offices	Sanitary Inspector, R.D.C.	5	1 0	202	..	26·90	119	93
D Hartley Wintney (Warren Heath)	L. G. Goddard, Esq., C.E.	5	1 0	227	..	26·92	134	95
D South Farnborough (R.A.E.) (+A)	The Meteorological Office	8	1 0	237	26·1	27·39	136	98
D Winchfield (Elvetham Park)	Mr. T. J Brownjohn	8	1 0	217	..	31·82	137	101
D Bramley (Street Farm House)	F. Walkinshaw, Esq.	8	1 0	227	28·8	22·65	139	100
D Stratfield Turgis (Byland's)	Miss D. Page-Roberts	5	0 8	218	..	24·20	139	100
D Heckfield (Park Corner)	Miss V. Martineau	5	1 2	257	24·3	22·20	126	98
9.—THAMES—Kennet. 65 sq. mi.								
D Wolverton (Ewhurst Park)	Mr. H. J. Beckingham	5	1 6	410	..	25·82	143	98
D Highclere (Castle Gardens)	Mr. A. W. Blake	5	1 6	500	..	30·86	126	100
D Highclere (Black Ford)	W. A. Turner, Esq.	5	1 0	439	..	31·81	127	103
D Highclere (Adbury Pk. Gdns.)	Mr. M. J. Lever	5	1 0	350	..	28·95	132	93
BERKSHIRE. (Area, 722 sq. mi.)								
1.—TEST. 2 sq. mi.								
2.—THAMES—Bourne. 15 sq. mi.								
Sunninghill (Frognal)	Mr. D. Chaplin	5	1 0	200	..	27·32	..	..
D Ascot (Heatherwood Hospital)	The Medical Superintendent	5	1 0	320	..	25·60	148	107
D Sunninghill (Little Paddocks)	Col. J. N. Horlick, M.C.	5	1 0	200	..	25·47	148	104

DIVISION II.—SOUTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
BERKSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
3.—THAMES—Loddon & c. 162 sq. mi.								
Finchampstead (Manor Farm)	M. B. Powell, Esq.	5	1 6	238	..	22·95	..	..
d Finchampstead (Pye Hill)	Col. M.A. Carlisle Crowe, C.M.G.	5	1 0	320	..	22·80	..	93
D Wellington College	A. L. Payne, Esq.	5	1 0	290	26·4	(24·73)	136	96
d Broadmoor Asylum	The Medical Superintendent	5	1 0	400	..	25·49	..	96
D Wokingham (Bucks Copse)*	C. W. Marks, Esq.	5	1 0	174	..	24·74	129	99
d Wokingham (Appin Lodge)	Rev. W. N. Blakeney	8	0 10	200	..	25·28	..	..
D Wokingham (Sindlesham Ho.)	Mr. W. Balcombe	5	4 6	200	..	23·45	122	95
d Bracknell (Hillside)	Late Mrs. B. C. Littlewood	5	1 0	207	..	26·36	..	101
D Winkfield (Ryemead)	Mrs. Aubrey Elliott	5	0 10	220	..	23·45	146	103
D Winkfield (Maidens Green)	R. Crosbie-Hill, Esq.	5	1 0	210	..	23·65	141	100
D Warfield (Jealott's Hill Farm)	Imperial Chemical Industries, Ltd.	5	1 0	220	..	23·42	137	101
D Windsor (Royal Gardens)	Mr. C. H. Cook	5	1 0	88	24·9	23·73	136	99
Pinkney's Green	R. P. Lord, Esq.	5	0 10	240	..	23·18	..	..
D Remenham Hill (Wedmore)	Lt.-Col. C.D. Burnell, D.S.O.	5	1 0	300	..	25·10	132	104
D Hambleden Lock	Mr. T. E. Wise	5	1 6	120	..	23·93	133	103
d Hurley House	Rev. W. Farrer	5	1 0	105	..	21·12	..	92
4.—THAMES—Kennet & c. 224 sq. mi.								
* D Inkpen (Manor Farm)	A. A. Lawrence, Esq.	5	1 5	450	..	30·89	143	102
D Inkpen (Willows)	G. C. Goodhart, Esq.	5	1 0	475	..	31·87	129	98
d Hampstead Marshall (Redhill)	Mrs. Lewis	5	1 0	400	..	29·29	..	..
D Mortimer (Wokefield Park)	Dr. A. Palmer	5	1 0	220	..	23·73	129	98
D Mortimer (Oakfield)	Rev. G. G. Skipwith	6	1 0	200	..	24·91	152	101
D Brimpton (Stonehouse)	F. Hadden, Esq.	5	0 7	350	..	25·64	123	93
Kintbury (Wallingtons)	A. S. Gladstone, Esq.	5	1 0	360	..	27·40	..	..
D Newbury (Greenham Common)	H. L. Bowman, Esq., D.Sc.	5	1 0	327	29·0	28·19	133	94
D Newbury (Wash Hill)	C. F. B. Marshall, Esq.	5	1 0	385	..	30·95	137	102
D Newbury (Tydeham)	J. H. Spackman, Esq.	5	1 0	400	..	28·23	144	96
D Shinfield (University Col. Farm)	Dr. J. A. Crowther	5	1 0	200	..	24·00	131	102
Upper Woolhampton	Rev. J. O. Dorman, B.A.	5	1 1	365	..	24·08	..	..
D Bucklebury Place	Mr. J. E. Henshall	5	1 0	409	..	22·43	124	94
D Reading (Leighton Pk. Sch.)	D. S. Gray, Esq.	5	1 0	264	..	22·28	141	98
D Reading W.W. (Bath Road)	L. C. Walker, Esq., C.E.	5	1 0	218	..	22·01	133	100
D Reading (Tilehurst)	Miss M. W. Latham	5	1 4	200	..	24·83	162	100
D Reading (Forbury Gardens)	A. S. Parsons, Esq., C.E.	5	1 5	143	24·9	21·72	133	92
D Reading (University College)	Dr. J. A. Crowther	5	1 0	152	..	22·92	138	100
Reading (Caversham Lock)	The Thames Conservancy	5	1 6	123	..	21·23	..	95
5.—THAMES—Ock & c. 319 sq. mi.								
d Reading (Englefield)	J. H. Benyon, Esq.	5	1 0	175	27·4	23·07	..	102
D Hermitage (Oare)	F. B. teson, Esq.	5	1 0	450	..	25·08	142	95
d Yattendon Court Apiary	Noel Vaslet, Esq.	5	1 0	350	..	23·74	..	96
D Upton (Manor House)	Miss C. S. Fry	5	1 0	240	..	21·92	142	96
D Wantage (Lockinge Rectory)	Rev. G. C. Keble	5	1 1	360	..	25·22	122	97
D Wantage Vicarage	Rev. A. Gossage Robinson	5	0 9	312	..	23·50	146	97
D Uffington (Woolstone Lodge)	Miss A. E. Butler	5	1 0	350	..	25·61	137	102
D Uffington Vicarage	Late Rev. E. M. Hadow	5	1 0	287	..	26·16	147	107
Steventon (Milton Hill)	R. H. Betteridge, Esq.	5	1 6	300	..	21·63	..	..
d Wallingford (St. Leonard's R.)	Rev. A. Simmons	5	1 4	142	..	22·60	..	91
D Wallingford (Woodlea)	G. F. Slade, Esq., M.B.E.	5	0 9	200	26.5	21·53	140	96
D Wallingford Castle	Miss E. Hedges	5	1 6	175	..	20·72	138	94
D Wallingford (Style Acre)	A. L. Morphew, Esq.	5	1 4	220	..	22·61	128	95
D Abbots Wittenham Rectory	Rev. W. F. B. Ward	5	1 0	190	..	19·45	130	95
D Long Wittenham (Willington)	H. J. Hewett, Esq.	5	1 0	167	..	21·52	125	95
D Faringdon (The Nurseries)	Messrs. R. Tucker & Sons	5	1 0	400	..	26·87	118	105
D Abingdon (Sewage Works)	W. H. Lewis, Esq., C.E.	8	1 0	169	..	20·05	141	96
D Abingdon (Twickenham House)	G. Saxby, Esq.	5	1 0	197	..	20·86	123	91
D Abingdon (The Firs)	Miss G. G. Challenor	5	1 3	200	..	20·73	135	93
D Abingdon (Donnington)	R. W. Langford, Esq.	5	1 6	199	..	21·16	130	95
D Abingdon (Northcourt House)	M. T. Tatham, Esq.	5	1 0	190	..	19·48	132	89
D Boars Hill (Sherwood)	Rev. G.N. Nuttall-Smith, M.A.	5	1 0	144	..	22·11	129	94
d Oxford (Kennington Nursery)	W. G. Gray, Esq.	5	0 10	300	..	20·66	..	88

* Formerly called Wokingham.

DIVISION III.—SOUTH MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
MIDDLESEX. (Area, 232 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—THAMES—Colne & Brent. 185 sq. mi.								
Weybridge (Shepperton Lock)	Thames Conservancy	5	1 0	41	..	21·32	116	92
D Littleton (Queen Mary Res.)	Met. Water Board	5	1 0	44	..	21·27	132	101
D Hampton Waterworks	Met. Water Board	5	1 0	27	..	20·04	131	93
d Hampton (The Manor House)	J. Hughes, Esq.	5	2 0	43	..	19·72	..	82
D Teddington (Holmesdale)	E. J. Allcard, Esq.	5	4 2	25	..	20·49	112	95
D Staines Reservoir (West Side)	Met. Water Board	5	1 6	53	..	21·76	131	95
D Staines Reservoir (East Side)	Met. Water Board	5	1 6	53	..	21·93	131	91
D Twickenham (Sewage Works)	The Borough Surveyor	5	1 0	37	..	20·65	127	96
D Sipson (Hollycroft)	Mr. J. Mitchell	5	1 0	94	..	23·00	126	106
D Kew Bridge (Waterworks)	Met. Water Board	5	1 0	36	..	21·51	124	91
d Chiswick (Turnham Green)	E. Willis, Esq., C.E.	8	1 0	21	..	18·23	..	..
D Hanwell	A. Dryland, Esq., C.E.	5	1 9	36	..	22·01	130	98
D Ealing (St. Paul's Vicarage)	Rev. A. H. Cooper	5	1 6	100	..	22·19	146	112
D Ealing (Longfield Avenue)	W. R. Hicks, Esq., C.E.	5	0 9	114	..	20·68	119	94
D Ealing (St. Stephen's Road)	H. W. Peal, Esq.	5	0 10	156	..	22·70	124	95
D Hayes Sewage Works	A. Dryland, Esq., C.E.	5	2 3	98	..	20·33	120	96
D Ealing (Hanger Hill Reservoir)	Met. Water Board	5	1 0	206	..	23·48	128	91
D Greenford	A. Dryland, Esq., C.E.	5	1 3	61	..	23·45	141	104
D Perivale (Northern Sewage Farm)	W. R. Hicks, Esq., C.E.	8	1 0	56	..	23·54	136	101
D Alperton (Sewage Works)	C. R. W. Chapman, Esq., C.E.	8	1 2	80	..	23·87	131	102
d Willesden Reservoir	Met. Water Board	5	1 0	167	..	24·39	113	99
D Willesden Green (Strode Road)	Miss Lamport	5	1 0	150	..	24·06	139	102
D Willesden (Stonebridge Fm.) (R)	F. Wilkinson, Esq., C.E.	10	5 9	100	..	24·13	123	92
d Ickenham Sewage Works	A. Dryland, Esq., C.E.	5	1 8	109	..	20·50	..	..
D Sudbury (Station Approach)	L. H. Powers, Esq.	8	1 0	153	..	24·08	137	100
D Golders Green (Dunstan Road)	Capt. A. E. Mackenzie	5	1 0	240	..	24·74	132	106
D Highgate (North Hill Depot)	W. H. Adams, Esq., C.E.	5	5 4	309	..	25·26	133	101
d Harrow (Rosebank Avenue)	C. L. Modlen, Esq.	5	1 0	200	..	22·94	124	92
D Harrow (Oakhurst)	Hugh Gardner, Esq.	5	1 0	295	..	22·55	136	92
d Harrow (Bessborough Rd. Depot)	J. P. Bennetts, Esq., C.E.	5	1 0	215	..	25·74	..	105
D Hendon (Sewage Works)	A. O. Knight, Esq., C.E.	6	1 6	153	..	23·67	126	102
D Hendon (Central School)	J. Burgess, Esq.	5	1 2	200	..	26·00	136	109
D Wealdstone (Sewage Works)	H. Walker, Esq.	5	1 0	154	..	23·84	135	96
d Wealdstone (Kodak Works)	Messrs. Kodak, Ltd.	5	1 0	193	..	23·02	..	..
D Harrow (Wealdstone House)	Miss H. O. E. Cobb	5	1 0	236	..	24·80	135	105
Northwood (Tandridge)	Chas. Price, Esq.	5	1 0	..	..	24·48	125	104
D Pinner (The Four Winds)	R. H. Daw, Esq.	5	1 0	185	..	24·55	132	97
D Edgware M.C.C. Depot	A. Dryland, Esq., C.E.	5	0 9	179	..	23·88	123	95
D Mill Hill (Ridgeway House)	Major N. G. Brett-James	5	1 0	375	..	24·94	120	101
D Stanmore	A. Dryland, Esq., C.E.	5	0 9	435	..	25·69	117	95
D Bushey Heath (Highfield)	W. B. Worthington, Esq. C.E.	5	1 0	503	..	25·28	135	82
D Elstree (Barnet Lane)	G. V. Maxted, Esq., C.E.	8	1 0	490	..	26·31	136	102
D Potters Bar (Mount Grace)	Mr. E. W. Halsey	5	1 3	375	..	26·78	139	106
2.—THAMES—Lea. 47 sq. mi.								
D Stroud Green (Mount View Rd.)	L. R. Bennett, Esq.	5	1 0	212	..	21·06	136	95
D Stroud Green (Oakfield Road)	E. A. W. Madge, Esq.	5	1 0	206	..	21·75	137	97
D Crouch End (Barrington Rd.) (+A)	W. H. Adams, Esq., C.E.	8	3 10	122	..	24·91	147	105
D Tottenham (Drayton Road)	Medical Officer of Health	5	1 3	51	23·3	21·83	111	98
D Hornsey (High Street)	Met. Water Board	5	1 2	107	..	22·60	123	92
Muswell Hill (Grand Avenue)	V. S. M. Williams, Esq.	5	1 5	317	..	23·32	..	..
D Muswell Hill (Sewage Farm) (+A)	W. H. Adams, Esq., C.E.	8	4 5	214	..	25·86	143	110
D Wood Green (Maryland Road)	F. C. Hornsey, Esq.	6	1 0	110	..	22·49	125	99
D Finchley (Victoria Park)	P. T. Harrison, Esq., C.E.	5	1 0	272	..	24·29	130	103
D North Finchley	Miss M. Shoults	5	1 0	290	..	25·35	131	99
D Bowes Park (Palmerston Road)	W. H. Heathfield, Esq.	5	1 5	100	..	23·53	132	95
D Palmers Gr. (Broomfield Pk.) (+A)	R. Phillips, Esq., C.E.	8	1 0	136	..	23·46	123	96
D Southgate	Dr. A. S. Ransome	5	1 0	250	..	26·58	167	103
D Ponders End (Bylock Hall)	H. E. Freir, Esq.	5	1 0	50	..	21·51	134	100
D Ponders End Pumping Station	Met. Water Board	5	1 0	45	..	21·23	123	102
D Enfield (Southbury Road)	Met. Water Board	5	1 0	105	24·7	22·80	133	99
D Enfield (Roselands, Turkey St.)	E. S. Rashleigh, Esq.	5	1 0	70	..	22·95	137	96
D Waltham Cross (Sewage Works)	J. E. Sharpe, Esq.	5	1 0	61	..	22·06	118	94

DIVISION III.—SOUTH MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
HERTFORDSHIRE. (Area, 635 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—THAMES—Thame. 10 sq. mi.								
D Tring (Akeman St.)	T. Grace, Esq.	8	1 0	450	..	27·05	148	106
D Tring (Pendley Manor)	Mrs. J. G. Williams	5	1 0	420	..	27·49	132	105
D Tring (Brookfield), Brig.-Gen. C. J. Steavenson, C.B., C.M.G.		6	1 3	430	..	24·01	131	97
2.—THAMES—Colne & Brent. 199 sq. mi.								
D Northwood (Woodhouse Eaves)	Miss S. F. Fox, M.D.	5	1 0	400	..	27·74	139	112
D Bushey Heath (California La.)	C. C. Cooper, Esq.	5	0 10	500	..	26·14	124	100
Rickmansworth (Croxley Green)	S. Ingleby Oddie, Esq.	5	1 0	262	..	27·47	..	98
D Barnet (Summerhill)	F. A. Milne, Esq.	5	1 0	400	..	25·68	147	77
D Barnet (Bedford Avenue)	Miss M. Haines	5	1 4	350	..	27·98	139	110
D Barnet (Sewage Works)	E. Scott, Esq., C.E.	5	1 0	295	..	25·84	163	105
d Barnet (Normandy Avenue)	P. J. Neville, Esq, C.E.	5	1 0	409	..	27·09	..	..
D Elstree (Aldenham House)	Mr. E. Beckett	5	1 0	305	..	25·30	120	98
D Watford (Oxhey Grange)	J. Doyle Penrose, Esq.	5	1 0	295	..	27·69	137	99
D Watford (Colne Valley W. W.)	C. P. Sinclair, Esq.	5	3 0	200	..	26·70	140	98
d Watford (Waterworks)	W. W. Newman, Esq., C.E.	6	1 9	175	..	25·75	..	..
Watford (Cassiobury Pk. Av.)	E. A. Robins, Esq.	5	1 0	240	..	26·34	124	92
D Watford (Park Road)	E. J. Slinn, Esq.	5	1 6	257	..	25·73	134	102
D Heronsgate (Waterfield House)	A. J. Richardson, Esq.	5	1 0	390	..	29·77	133	106
D Sarratt (Micklefield Green)	J. O. Hickman, Esq.	5	0 6	380	..	29·76	148	108
D Shenley Grange	J. Charrington, Esq.	5	0 9	430	..	26·61	114	104
D Shenley (Kitwells)	T. H. Riches, Esq.	5	1 0	420	..	27·80	129	106
D Sarratt (Goldingtons)	P. Clutterbuck, Esq.	5	1 0	384	..	30·26	117	105
D Chipperfield (Little Callipers)	A. W. Rivington, Esq.	5	1 0	407	..	29·73	114	101
D Kings Langley (Fir Tree Cottage)	Edward Toms, Esq.	5	1 0	300	..	28·89	149	110
D Park Street (Bricketwood)	F. J. McLees, Esq.	5	1 0	300	..	26·23	131	99
D Hemel Hempstead (Apsley Mills)	Messrs. J. Dickinson & Co.	24	1 4	268	27·9	29·58	150	102
D Colney Heath (Tyttenhanger P.S.)	J. F. Haseldine, Esq.	5	0 9	241	..	25·10	139	98
D Hemel Hempstead (Northridge)	R. C. Micklem, Esq.	5	1 0	460	..	30·56	151	115
D St. Albans (Co. Mental Hosp.)	G. Goodchild, Esq.	5	1 0	295	..	23·83	130	100
D St. Albans (County Museum)	Mrs. Bullen	5	1 0	389	..	26·83	131	100
D St. Albans (Oaklands)	J. Hunter Smith, Esq.	5	1 0	272	..	24·14	130	94
D St. Albans (Gorhambury)	Mr. O. Twitchett	5	1 0	423	..	29·50	133	107
D Hatfield (Hatfield P. Stn.)	J. F. Haseldine, Esq.	5	1 0	334	..	24·77	131	100
d Berkhamsted (Rossway)	The Lady Hadden	5	1 3	590	..	28·66	..	..
D Berkhamsted (Anglefield)	E. T. Browne, Esq.	5	1 0	450	29·8	28·21	138	101
d Berkhamsted (Amersfoot)	Mrs. Walter Cohen	5	1 0	510	..	27·81	..	..
d Berkhamsted Golf Club	The Secretary	8	1 0	550	..	(26·44)	..	..
D Tring (Cowroast Lock) *Old g*	T. W. Millner, Esq., C.E.	5	3 6	394	..	25·92	125	98
D Tring (Cowroast Lock) *New g*	T. W. Millner, Esq., C.E.	5	1 0	390	..	26·66	126	101
d Redbourn (Crecy)	Roger M. Dixon, Esq.	5	1 0	350	..	(26·31)	(141)	(104)
D Harpenden (Rothamsted) (+A)	Lawes Agricultural Trust.	8	0 9	420	26·7	25·75	148	98
Harpenden (Rothamsted)	Lawes Agricultural Trust.	5	1 0	420	..	26·40	..	..
Harpenden (Rothamsted)	Lawes Agricultural Trust	72×87	0 9	420	..	27·71	..	..
3.—THAMES—Lea. 340 sq. mi.								
D Cheshunt (Manor House)	J. E. Sharpe, Esq.	5	1 0	83	..	23·14	123	95
D Northaw School	C. Steventon, Esq	5	5 0	400	..	23·63	123	89
D Cheshunt Yard	Met. Water Board	5	1 0	100	..	24·13	136	106
D Cheshunt (Cheshunt Park)	J. A. Wanklyn, Esq.	5	0 9	209	..	25·25	143	105
D Cheshunt (Darnicle Hill P. Stn.)	Met. Water Board	5	1 0	250	..	27·21	140	108
D Hertford (Epping House)	Lady Brodie Henderson	5	0 9	400	..	25·23	142	103
d Essendon Place Gardens	J. B. Healing, Esq.	5	1 0	365	..	26·96	..	98
Little Berkhampstead	A. Noble, Esq.	5	1 0	380	..	25·18	..	..
d Hatfield (Co. Surveyor's Office)	Lt.-Col. A. E. Prescott, C.E.	5	1 0	265	..	21·99	..	..
D Hoddesdon	H. F. Hayllar, Esq.	5	5 0	120	..	24·84	125	96
D Hoddesdon (Feilde's Weir)	Met. Water Board	8	1 7	95	..	23·24	133	92
D Haileybury College	B. M. C. Marshall, Esq.	8	1 4	270	..	24·06	138	99
D Hertford (Bayfordbury)	H. W. Clinton Baker, Esq.	8	1 2	250	..	25·14	138	105
d Stanstead Abbots (Warrax)	E. H. Barlow, Esq.	5	1 2	110	..	23·56	..	100
D Gilston Park	Mr. J. Dewhurst	8	1 0	175	..	24·62	131	101
D Welwyn Garden City	H. A. Cook, Esq., C.E.	5	1 0	246	..	24·13	133	99
D Hertford (Sewage Works)	Met. Water Board	5	1 0	120	..	22·77	130	100
D Ware (Red House)	Met. Water Board	5	1 0	105	..	23·08	129	101

DIVISION III.—SOUTH MIDLAND COUNTIES—(*con.*).

	STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with .01 in. or more.	Days with .04 in. or more.
	HERTFORDSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	3.—THAMES—Lea—(*con.*).								
D	Ware (Chadwell Spring)	Met. Water Board	5	1 0	140	..	23·28	134	97
D	Ware (Herts. Training Sch.)	J. Maxwell, Esq.	8	1 0	210	..	22·05	132	87
D	Welwyn Garden City (Valley Rd.)	Comdr. W. George Lingham	5	1 0	300	..	20·86	153	94
D	Welwyn (Harmer Green)	Mrs. E. Weber	5	1 0	403	..	24·96	144	116
d	Welwyn (Codicote Lodge)	Mr. G. J. Miller	5	1 0	340	..	24·70	..	100
D	Much Hadham	T. Woodham Mott, Esq.	5	1 0	212	..	24·43	144	104
d	Much Hadham (Lordship)	Capt. W. Glynes Bruty	5	0 10	205	..	23·74	117	95
D	Bishop Stortford (Twyford H.)	Laurie Frere, Esq.	5	1 0	181	..	22·54	132	95
D	Watton (Frogmore Hall)	Lt.-Col. J. B. Gilliat, D.S.O.	5	0 9	250	..	22·48	113	101
D	Standon	F. H. Wace, Esq.*	5	2 0	375	..	19·89	123	97
D	Benington House	Miss E. A. Parker*	5	1 0	407	24·9	22·43	152	102
D	Little Hadham (Hadham Hall)	W. Minet, Esq.	5	0 10	338	..	23·53	116	106
D	Hitchin (Preston)	R. de V. Pryor, Esq.	8	1 0	484	..	22·35	114	93
D	Furneaux Pelham (The Brewery)	G. Warren Bindloss, Esq.	5	1 0	300	..	21·64	135	102
D	Royston (Therfield Rectory)	Rev. H. R. Humphreys	5	1 0	512	25·2	23·18	141	107
	4.—OUSE. 86 sq. mi.								
D	Offley (School House)	C. W. Mears, Esq.	5	1 0	526	..	22·34	127	98
D	Graveley Rectory	Rev. R. E. C. Walker	5	0 10	325	..	25·49	143	111
D	Hitchin (Newlands)	F. Ransom, Esq.	5	1 0	271	..	23·86	153	103
D	Hitchin (High Down)	Miss E. Pollard	5	1 1	421	..	22·39	168	106
D	Letchworth (Gernon Road)	A. W. Brunt, Esq.	5	1 0	280	..	19·93	125	94
d	Letchworth (Sollershott)	Miss H. Leather	5	1 0	300	..	21·34	135	86
D	Letchworth (Sollershott West)	Edward Grubb, Esq.	8	0 11	310	..	21·21	149	96
D	Letchworth (Fire Station)	The Surveyor, U.D.C.	5	1 3	290	..	19·58	126	92
D	Letchworth (New Sewage Works)	The Surveyor, U.D.C.	5	1 0	195	..	20·87	128	92
d	Baldock	Dr. Bertram Suggit	8	2 0	210	..	20·25	..	..
D	Barley (Dalnyveed)	E. M. Cook, Esq.	5	1 0	300	..	20·75	126	93
D	Royston (Earls Hill House)	Col. E. C. M. Phillips, D.S.O.	8	1 3	225	..	22·41	145	104
	BUCKINGHAMSHIRE. (Area, 743 sq. mi.)								
	1.—THAMES—Cherwell. 30 sq. mi.								
	2.—THAMES—Thame. 158 sq. mi.								
	Princes Risborough	A. A. Kidson, Esq.	5	0 10	360	..	(25·16)	..	..
D	Towersey Vicarage	Rev. H. E. Cooper	5	1 0	250	..	24·81	140	108
	Ellesborough (The Springs)	J. K. Bateman, Esq.	5	1 2	400	..	23·51	..	..
D	Little Kimble	Dr. L. T. Burra	5	0 10	370	..	22·23	131	93
D	Tring (Bulbourne)	T. W. Millner, Esq., C.E.	5	1 0	401	..	22·61	137	91
D	Aylesbury (Sewage Works)	W. H. Taylor, Esq.	5	1 0	251	..	24·70	147	121
	Mentmore Gardens	Mr. T. Lindores	5	1 3	400	..	23·51	..	..
D	Quainton (Quainton Cottage)	L. H. West, Esq., O.B.E.	5	1 0	350	..	21·24	117	90
	3.—THAMES—Wye & c. 129 sq. mi.								
D	Eton (Tangier Island)	E. A. Stickland, Esq.	5	0 6	68	..	23·53	143	98
D	Slough (Upton)	R. Bentley, Esq.	5	1 0	78	23·9	22·13	133	98
D	Taplow Court Gardens	G. H. Emmett, Esq.	8	1 0	217	..	24·32	107	100
D	Taplow (Hitcham Grange)	Hon. C. S. Irby	5	1 0	180	..	20·71	116	92
D	Henley-on-Thames (Greenlands)	Lord Hambleden	5	1 0	116	..	23·84	119	88
D	Hedsor (Bourne End)	J. Wood, Esq.	8	1 0	170	..	31·38	108	98
D	Bourne End	Major Forbes Holland	5	2 0	91	..	27·09	132	106
D	High Wycombe (Flackwell Hth.)	E. Dickson Park, Esq.	5	1 10	365	..	25·84	135	103
D	High Wycombe (Easton St.)	H. S. Wheeler, Esq.	5	0 11	253	25·9	28·83	161	111
D	Penn (Woodside)	Miss E. M. T. Epps	5	0 9	500	..	28·52	146	111
D	Penn (Rayners)	Mr. E. Peett	5	1 10	547	..	30·69	136	108
D	Hampden House	late Earl of Buckinghamshire	5	1 0	695	..	28·42	146	104

Per Hertfordshire Natural History Society.

DIVISION III.—SOUTH MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
BUCKINGHAMSHIRE—(*con.*).								
4.—THAMES—Colne. 133 sq. mi.		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
d Wraysbury School	R. Watson, Esq.	5	0 8	59	..	23·50	..	..
D Slough (Ditton Park)	G. B. Harrison, Esq.	5	2 0	70	..	22·29	120	101
D Slough (Langley)	R. H. Major, Esq.	8	0 10	85	23·9	22·96	127	94
d Slough (Seed Trial Ground)	Messrs. Sutton & Sons	5	0 9	100	..	23·50	..	..
D Stoke Poges (Council School)	S. A. Moore, Esq.	5	1 0	210	..	22·95	151	106
D Gerrards Cross (Bulstrode Gdns)	Mr. G. Taylor	5	1 6	280	..	24·31	109	97
d HighWycombe(HazlemereSch.)	A. J. Chapman, Esq.	5	1 0	568	..	25·49	..	..
D Chalfont St.Giles(Roughw'd Pk.)	Thurston Agelasto, Esq.	5	1 0	400	..	28·47	113	104
D Amersham (The Plantation)	Mrs. Fawcett	8	1 0	480	..	28·32	106	91
D Amersham Common (Stanmore)	W. Garton, Esq.	5	1 0	520	..	29·74	143	105
D Wendover (Mayortorne Manor)	Miss I. Fry	5	0 9	520	..	26·04	156	96
5.—OUSE. 293 sq. mi.								
D Oving House	Mrs. H. Yates Thompson	5	1 0	515	28·1	23·48	141	102
D Wing (Burcott)	R. H. Ayres, Esq.	5	1 6	407	..	23·71	133	105
D Swanbourne House School	L. L. C. Evans, Esq.	5	1 0	411	..	23·72	128	102
D Mursley Hall	Lady Beecham	8	1 0	490	..	20·74	118	89
D Buckingham (Market Hill)	A. Pettipher, Esq.	5	1 0	300	..	26·90	153	98
D Wavendon (Endowed School)	T. G. M. Watson, Esq.	5	1 0	300	..	22·28	147	104
D Stony Stratford (Calverton L.)	Lt.-Col. L. C. Hawkins	5	1 0	230	..	20·71	128	97
D Wolverton (St. George's Vic.)	Rev. Canon W. L. Harnett.	5	1 0	270	..	20·82	127	87
D Wolverton (Gables Lodge)	J. Forster, Esq.	5	1 0	264	..	21·24	145	107
d Wolverton (Council School)	E. T. Smart, Esq.	5	5 0	263	..	20·42	..	..
d Turvey (Brayfield House)	Major D. Farrer, J.P.	5	1 0	188	..	21·63	..	..
OXFORDSHIRE. (Area, 756 sq. mi.)								
1.—SEVERN—Upper Avon. 10 sq. mi.								
D Sibford Ferris (WoolmanCottage)	Joshua Lamb, Esq.	5	1 0	570	27·6	28·28	139	104
D Sibford Gower	S. N. Baker, Esq.	5	1 0	600	..	26·77	127	97
2.—THAMES—Windrush & c. 261 sq. mi.								
D Bampton (C.E. School)	E. W Fry, Esq.	5	0 10	233	..	24·58	124	107
D Broughton Poggs	Mrs. Hardcastle	5	1 0	275	..	24·14	142	123
D Witney (Cokethorpe)	Major H. G. Feilden	5	3 0	230	..	24·23	119	114
D Eynsham (Barnard Gate)	Basil de F. Osmaston, Esq.	5	4 6	245	..	21·99	122	101
D Leafield (Wireless Station) (+A)	Meteorological Office	8	1 0	612	27·3	27·19	151	104
d Charlbury (Cornbury Park)	Mr. B. Campbell	5	1 0	420	..	29·52	..	103
D Wootton Rectory	Rev. F. R. Marriott	5	1 0	375	..	27·08	143	107
D Lyneham	R. de M. Pratt, Esq.	5	1 0	351	..	25·14	141	111
d Bruern Abbey (The Gardens)	F. S. Smith, Esq.	5	1 0	340	..	(28·60)	..	..
d Glympton Park (R)	Lt.-Col. G. H. Barnett	8	2 0	..	..	30·13	..	99
D Chadlington (Langston House)	Lt.-Col. F.W.Schofield, CMG.	5	1 0	430	..	26·39	140	102
d Churchill (The Grange)	J. M. Blair, Esq.	5	1 0	500	..	(24·64)	(140)	(103)
D Chipping Norton (HeythropCol.)	Rev. L. Cardwell, S.J.	8	1 0	600	..	29·83	158	110
D Chipping Norton (Bungalow)	T. H. Pettipher, Esq.	5	1 0	750	..	27·31	141	108
Chipping Norton (Choice Hill)	E. W. Arkell, Esq.	5	1 0	500	..	27·05	..	..
3—THAMES—Cherwell. 250 sq. mi.								
D Nuneham Park Gardens	Mr. W. E. Hewitt	8	1 0	280	..	21·60	132	100
D Oxford (Hincksey Pumping Sta.)	City Engineer	8	1 0	187	..	21·56	140	94
Oxford (Osney Lock)	Thames Conservancy	5	1 6	188	..	21·90	129	95
D Oxford (Magdalen College)	F. J. Parker, Esq.	5	1 0	186	23·8	20·52	141	91
D Oxford (Radcliffe Obs.) (+A)	H. Knox Shaw, Esq.	8	1 8	208	24·8	22·39	139	95
D Headington (Warneford Asy.)	Dr. A. W. Neill	5	1 0	300	..	21·48	118	97
D Headington (Forest Lodge)	Major A. V. Spencer, D.S.O.	5	0 11	333	..	23·01	120	97
D Headington (Charlton Lea)	L. Dawes, Esq.	5	1 0	300	..	23·75	129	98
D Headington Hill (Thornhill)	E. S. Fry, Esq.	5	1 0	..	..	22·56	134	100
D Elsfield (Home Farm)	Miss M. J. Parsons	5	1 0	355	..	22·75	131	96
D Tackley (Hill Court)	W. Evetts, Junr.	5	1 0	340	27·9	25·47	129	101
D Middleton Park	The Earl of Jersey	5	1 0	326	26·7	25·66	141	111
D Upper Heyford (+A)	The Meteorological Office	8	1 0	408	..	25·31	150	104
D Steeple Aston (The Grange)	Arthur E. Bradshaw, Esq.	8	1 0	400	27·2	27·61	144	105
D Steeple Aston (Hill House)	B. S. Ogle, Esq.	5	1 0	406	..	26·58	145	107

DIVISION III.—SOUTH MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
OXFORDSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
3.—THAMES—Cherwell—(*con.*).								
D West Adderbury (St. Amand's)	Miss M. M. Bradford	8	1 6	320	..	25·88	117	94
D Adderbury (Cross Hill)	Lt.-Col. H. E. du C. Norris	5	1 0	338	..	25·12	145	95
D Adderbury (The Rookery)	C. C. Bradford, Esq.	8	1 0	323	..	27·77	140	110
D Adderbury (Little Manor)	Lt.-Col. H. E. du C. Norris	5	0 10	..	..	26·71	136	98
D Banbury (Cotefield)	C. N. Keyser, Esq.	5	1 0	300	..	25·11	107	97
D Bodicote (C. of E. School)	F. Benson, Esq.	5	1 0	391	..	28·53	123	113
D Broughton Rectory	Rev. B. W. Bradford	5	1 6	370	..	27·03	141	96
D North Newington (Grafton Cot.)	W. Pikesley, Esq.	5	1 0	425	..	24·57	142	99
D Grimsbury (Banbury W.W.)	I. E. Commin, Esq.	5	1 3	316	..	24·11	144	104
Wroxton	Hon. Mrs. Fitz Gerald	12	1 6	500	..	26·93	..	115
4.—THAMES—Thame & c. 210 sq. mi.								
D Caversham (St. Peter's Hill)	Rev. G. V. Proctor	5	1 0	220	..	22·58	117	91
D Caversham (Kidmore End Sch.)	T. F. Higgens, Esq.	5	1 0	309	..	24·94	131	98
d Goring Heath	Rev. F. T. Wintle	5	1 0	400	..	24·52	142	107
D Harpsden (Cray) (+A)	B. E. Dunbar Kilburn, Esq.	5	1 0	230	..	22·77	128	95
D Henley-on-Thames (Hart St.)	A. Edward Hobbs, Esq.	5	1 6	110	..	22·79	121	91
D Henley-on-Thames (Greys Lane)	G. F. Smith, Esq.	5	0 9	123	..	24·37	117	102
D Henley-on-Thames (Greys Gr.)	Mrs. H. Wolferstan	5	1 0	350	..	24·16	133	100
D Wyfold (Neals Farm)	J. P. Lee, Esq.	5	0 9	540	..	26·03	124	105
D Ipsden (Hailey)	Glynne Williams, Esq.	5	1 0	350	..	23·02	131	102
D Nettlebed (Joyce Grove) No. 1	Mr. F. Morby	5	1 0	590	..	29·08	120	105
D Swyncombe House	C. W. Christie-Miller, Esq.	5	0 11	515	..	28·25	125	105
D Culham	F. Mitchell, Esq.	5	0 10	180	..	17·54	128	94
Culham (Zouch Farm)	P. E. Saunder, Esq.	5	1 3	186	..	16·39	..	..
D Clifton Hampden (Manor House)	Lord Aldenham	5	1 0	190	..	20·79	123	95
D Watlington (Pyrton Manor)	Major H. Ducat Hamersley	5	1 0	325	26·7	23·67	130	105
D Wheatfield	A. J. Spencer, Esq.	5	0 11	275	..	23·74	119	100
D Toot Baldon (Potland)	D. Clinkard, Esq.	5	1 0	288	..	20·66	110	90
5.—OUSE. 25 sq. mi.								
NORTHAMPTONSHIRE (Area, 1003 sq. mi.)								
1.—SEVERN—Upper Avon. 60 sq. mi.								
D Rugby (Kilsby Vicarage)	Rev. C. Ryder Macnally	5	1 3	470	..	23·72	142	102
D Winwick Warren	Capt. P. L. Ransom	8	1 5	648	..	24·73	174	112
D Naseby Reservoir	T. W. Millner, Esq.	5	1 6	519	..	22·67	159	105
2.—THAMES—Cherwell. 77 sq. mi.								
D Croughton	C. A. St. George Moore, Esq.	5	1 0	430	..	24·52	138	96
D King's Sutton (Manor House)	G. Morgan, Esq.	5	1 0	338	..	26·88	105	95
3.—OUSE. 148 sq. mi.								
D Brackley (Waterworks)	W. M. Oldreive, Esq.	5	1 2	471	..	23·93	128	96
D Hazelborough Woods	Office of Woods	8	1 0	241	..	25·43	107	101
d Silverstone (Council Sch.)	J. P. Osborne, Esq.	5	1 0	400	..	25·02	..	..
D Wappenham (Lois Weedon Vicarage)	Rev. E. V. Fenn	5	1 2	400	..	23·88	157	103
D Towcester (Bradden House)	C. E. Grant-Ives, Esq.	5	0 10	420	..	24·71	145	95
D Towcester (Easton Neston)	Sir T. Fermor-Hesketh, Bt.	8	1 0	325	..	23·20	137	93
D Roade (Council School)	R. W. Janes, Esq.	8	1 0	394	..	22·27	102	92
d Hargrave Hall	Sir K. Murchison	5	1 0	273	..	18·87	..	..
4.—NENE. 622 sq. mi.								
D Salcey Forest	Office of Woods	8	1 3	370	..	25·25	103	99
D Blisworth (Crieff House)	A. Westley, Esq.	5	1 0	351	25·1	23·40	157	102
D Blisworth (Grand Junc. Canal)	T. W. Millner, Esq.	5	1 6	300	..	21·71	151	94
D Castle Ashby	A. R. Searle, Esq.*	5	1 4	230	..	23·24	159	100
D Little Houghton House	Christopher Smyth, Esq.	5	1 0	270	..	22·42	133	101

* *Per* Northamptonshire Natural History Society.

DIVISION III.—SOUTH MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
NORTHAMPTONSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—NENE—(*con.*)								
D Northampton (Upton)	J. R. Foster, Esq.	5	1 0	270	..	20·54	118	97
D Northampton (General Hosp.)	H. St. John Wood, Esq.	5	1 1	259	..	22·11	135	98
D Northampton (Mental Hosp.)	W. R. Budgen, Esq.*	8	1 2	398	..	22·33	148	97
D Northampton (Stimpson Av.)	F. Tomlinson, Esq., C.E.†	8	1 0	329	..	22·45	129	99
D Northampton (Mercers Row)	R. H. Primavesi, Esq.	5	12 0	240	..	21·38	152	98
D Fiore	Major C. A. Markham	5	1 0	344	..	22·53	145	96
D Duston (Southfield Road)	W. P. Walker, Esq.	5	1 0	342	..	23·83	154	110
D Wollaston	G. Harris, Esq.	5	2 0	250	..	19·63	138	93
D Daventry (Tunnel End)	T. W. Millner, Esq.	5	1 6	394	..	21·40	132	83
D Althorp Park	Mr. G. Low*	5	1 3	414	..	24·43	138	108
D Sywell Hall	Brig.-Gen. H. E. Stockdale	5	1 0	371	..	23·69	145	99
D Pitsford (Sedgebrook)	Major C. A. Markham	5	1 0	311	24·5	24·05	129	100
D Wellingborough (Swanspool)	R. S. Henshaw, Esq., C.E.	5	6 0	169	24·3	21·05	155	95
D Wellingborough (Sewage Works)	R. S. Henshaw, Esq., C.E.	5	1 0	139	..	18·62	148	90
D Wellingboro' (Bushfield W.W.)	R. S. Henshaw, Esq., C.E.	8	0 11	286	..	20·68	151	95
D Watford Court	Lord Henley	9	1 2	380	..	23·62	..	..
D Ravensthorpe Reservoir	F. Tomlinson, Esq., C.E.	5	1 0	370	..	21·55?	146	102
D Raunds (Day School)	The Head Master	5	1 0	200	23·5	16·97	127	84
d Lamport Hall Gardens	Mr. H. Tyrrell	8	1 0	420	..	24·27	115	104
D Kettering W.W. (Cransley)	Major J. P. Haugh	8	1 0	275	..	22·32	144	101
D Kettering (Sewage Works)	Major J. P. Haugh	8	0 11	199	..	21·16	148	97
D Kettering W.W. (Thorpe Malsor)	Major J. P. Haugh	5	0 11	352	..	22·90	149	99
D Kettering W.W. (Clover Hill)	Major J. P. Haugh	5	1 0	344	..	21·61	134	95
D Thrapston (Drayton House)	Mr. C. V. Craske	5	1 6	220	..	23·78	136	118
Rothwell (Loddington)	Mr. J. Oliff	5	1 0	400	..	21·77	107	100
d Thrapston (Islip)	G. E. Abbott, Esq.	5	..	145	..	15·86?	..	..
D Tichmarsh Rectory	Rev. Canon A. M. Luckock*	5	1 0	170	..	18·31	147	96
D Rothwell (Shotwell Mill W.W.)	The Surveyor, U.D.C.	5	1 6	340	..	21·60	128	98
D Desborough U.D.C. Waterworks	A. Harris, Esq., C.E.	5	0 9	457	..	23·88	170	103
D Barnwell (Lilford Hall)	Mr. F. W. Gallop	5	1 0	..	..	19·47	129	96
d Oundle (Milton Road)	J. M. Siddons, Esq., C.E.	5	1 6	131	22·3	16·18	..	..
D Oundle School	A. Bond, Esq.	8	1 0	147	..	15·33	144	87
d Peterborough (Woodston)	Central Sugar Co., Ltd.	5	1 0	25	..	17·55	..	..
D Peterborough (Westbourne Ho.)	E. H Colman, Esq.	5	1 0	35	..	18·85	142	87
D Peterborough (Abbeyfields)	Major J. Shipley Ellis	5	1 0	49	..	19·41	148	96
D Peterborough (Milton Park)	Mr. E. A. Parker	5	2 0	86	..	19·49	133	99
D Wittering (Whitewater)	E. Betts, Esq.	8	1 0	241	..	19·59	120	90
D Wittering (Bone Mill)	E. Betts, Esq.	8	1 0	..	..	20·50	127	99
D Eye (Northolm)	S. M. Egar, Esq.	5	1 0	17	..	17·97	145	88
D Eye (Newborough)	R. Williams, Esq.	5	1 0	8	..	18·87	137	94
5.—WELLAND. 96 sq. mi.								
D Market Harboro' (Dingley Hall)	Mr. V. Read*	5	1 6	400	..	26·12	133	105
D Weston-by-Welland	Major N. H. Matthews	5	1 3	254	..	24·95	153	115
D Rockingham Castle Gardens	Mr. C. Mears	5	1 2	450	..	23·86	142	102
D Gretton School	W. Leeson, Esq.	5	1 6	365	..	20·58	159	98
d Easton-on-the-Hill	W. H. Tillson, Esq.	5	0 7	290	..	20·53	..	..
D Market Deeping (Etton)	W. H. A. Court, Esq., C.E.	8	1 0	25	..	18·07	129	91
HUNTINGDONSHIRE. (Area, 366 sq. mi.)								
1.—OUSE. 327 sq. mi.								
D St. Neots (Waresley Park)	Miss E. Duncombe	5	0 11	190	24·0	19·03	128	96
D Hemingford Grey	G. F. Wilson, Esq.	5	1 6	20	21·9	17·03	129	94
D Hemingford Grey School	W. T. Carter, Esq.	5	1 0	23	..	17·15	133	97

* *Per* Northamptonshire Natural History Society.
† "Ground" is the roof of a reservoir 18 ft. above the general level.

DIVISION III.—SOUTH MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
HUNTINGDONSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—OUSE—(*con.*).								
d Brampton (The Lilacs)	Mrs. G. H. Raynor	5	1 0	45	22·3	(19·67)	..	..
D Huntingdon (Hinchingbrooke)	Mr. W. Prowting	5	2 0	70	22·4	19·48	145	96
D St. Ives (Slepe House)	Dr. W. R. Grove	5	1 0	25	22·6	17·27	138	90
D Catworth (School House)	J. H. Annet, Esq.	5	0 9	210	23·7	18·20	138	97
D Whittlesea Mere	L. I. Clark, Esq.	8	1 6	10	21·4	17·40	122	91
2.—NENE. 39 sq. mi.								
BEDFORDSHIRE. (Area, 467 sq. mi.)								
1.—THAMES—Colne. 20 sq. mi.								
Luton (Stockwood)	Capt. H. Crawley Ross-Skinner	5	1 0	539	..	23·41	141	98
2.—THAMES—Lea. 32 sq. mi.								
D Luton (Pumping Station)	J. W. Tomlinson, Esq., C.E.	5	1 0	343	25·9	22·49	137	93
D Dunstable (Cement Works)	L. B. Cockland, Esq.	8	1 0	430	..	22·86	141	95
D Luton (Wardown Park)	J. W. Tomlinson, Esq., C.E.	5	1 0	381	..	22·01	133	93
D Luton (The Downs)	G. W. Pryer, Esq.	5	1 0	479	..	21·92	130	98
3.—OUSE. 408 sq. mi.								
d Shefford (Stondon Manor)	R. Long, Esq.	5	1 0	241	..	20·02	..	..
D Hockliffe (Wistaria)	C. J. Kilby, Esq.	5	1 0	350	..	23·13	126	100
D Steppingley	E. Capel, Esq.	5	1 0	350	..	20·55	139	97
D Woburn (Experimental Farm)	Lawes Agricultural Trust	8	1 0	291	23·9	21·52	153	97
D Woburn (Fruit Farm, Ridgmont)	E. J. Hobbs, Esq.	5	1 0	270	..	22·22	144	99
D Stotfold (Three Co. Mental Hos.)	Dr. L. O. Fuller	5	1 0	220	23·2	20·92	136	88
M Meppershall	K. R. Reynolds, Esq.	5	0 9	235	..	19·28	..	..
Shefford (Clifton Bury)	A. Inskip, Esq.	5	1 6	150	..	20·55	..	..
D Shefford Council School	G. F. Alldritt, Esq.	5	1 0	126	..	17.80	134	92
Shefford (Stanford)	H. Inskip, Esq.	5	1 0	90	..	20·16	..	..
D Southill School	B. Perkins, Esq.	5	0 9	145	..	21·91	125	95
D Biggleswade (New Spring P.S.)	T. A. Staniforth, Esq.	5	1 6	180	..	19·04	144	102
D Cardington (+A).	The Meteorological Office	8	0 10	137	..	17·98	135	85
D Sandy (The Lodge)	Mr. R. Pettifer	5	1 0	200	..	19·92	127	102
D Sandy (Mogerhanger Park)	Dr. C. G. Welch	..	..	..	..	19·91	148	100
D Sandy (Sewage Works)	C. M. Robinson, Esq.	5	1 0	72	..	17·89	128	95
D Bedford (Castle Road)	Miss M. E. Newbery	5	7 0	108	..	19·09	139	93
D Bedford (Bedford Park)	N. Greenshields, Esq., C.E.	8	1 3	117	..	17·57	130	89
Goldington (Castle Mills)	W. H. Rogers, Esq.	5	1 4	90	..	17·01	..	..
D Great Barford House	J. Arnold Whitchurch, Esq.	5	1 0	120	..	18 89	128	84
Sharnbrook (Castle Close)	L. Stileman-Gibbard, Esq.	5	1 0	210	..	18·82	131	93
4.—NENE. 7 sq. mi.								
CAMBRIDGESHIRE. (Area, 859 sq. mi.)								
1.—STOUR. 17 sq. mi.								
2.—OUSE. 741 sq. mi.								
D Ashwell (Odsey)	W. Herbert Fordham, Esq.	5	2 0	256	23·0	21·05	138	100
Litlington Vicarage	Rev. M. de Courcy-Ireland.	8	1 0	120	..	21·79	119	..
D Guilden Morden Vicarage	Rev. Ll. G. S. Price	5	1 0	140	21·9	21·92	137	94
Abington Pigotts Rectory	Rev. M. de Courcy-Ireland.	5	1 0	78	21·8	22·91	123	88
D Melbourn (Melbourn Bury)	A. R. Fordham, Esq.	5	1 0	90	..	20·35	146	101
d Meldreth (Chiswick Farm)	A. A. Howard, Esq.	5	1 1	70	22·4	21·26	145	98
D Whittlesford (Scotts)	Robert Maynard, Esq.	5	0 6	68	22·3	20·70	..	..
D Wimpole Hall	Mr. W. J. Snell	5	1 0	141	23·0	22·28	122	99

DIVISION III.—SOUTH MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with .01 in. or more.	Days with .04 in. or more.
CAMBRIDGESHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—OUSE—(*con.*).								
D Shelford (Stapleford House)	J. H. H. Linton, Esq.	5	2 3	64	22·3	19·34	122	102
D Balsham Rectory	Rev. H. J. E. Burrell	5	1 6	399	23·0	18·79	113	88
Long Stow	S. Welsford Pain, Esq.	5	1 0	240	..	19·56	..	..
D Granchester (Lyndwode)*	J. Nutter, Esq.	5	1 0	31	22·6	20·46	115	99
D Fulbourn (Fleam Dyke)	W. W. Gray, Esq., C.E.	5	1 0	99	21·0	17·71	131	90
D Fulbourn Pumping Station	W. W. Gray, Esq., C.E.	5	1 0	37	22·9	18·72	139	96
D Fulbourn (Cambridge Mental Hos.)	The Farm Bailiff	5	1 6	72	..	18·24	124	86
D CambridgeW.W. (Cherryhinton)	W. W. Gray, Esq., C.E.	5	1 0	35	21·6	17·77	115	84
Cambridge (Hills Road)	Smith Nutter, Esq.	8	0 10	45	23·8	21·17	160	108
D Cambridge(CorporationStoreYd)	G. W. Teasdale, Esq., C.E.	5	1 8	52	21·2	19·21	128	90
D Cambridge (Botanic Gardens)	F. G. Preston, Esq.	5	1 1	41	21·8	19·58	121	92
D Cambridge (Mount Pleasant)	Rev. W. Francis Hicks	5	1 6	45	..	18·36	128	96
D Cambridge(CorporationPpg.St.)	G. W. Teasdale, Esq., C.E.	5	1 7	28	22·1	18·21	130	90
D Caxton	Dr. E. P. H. Dudley	5	1 0	170	23·3	18·97	117	93
D Quy Hall	T. Musgrave Francis, Esq.	5	0 9	23	23·3	19·81	135	102
D Boxworth (Manor House)	E. H. Thornhill, Esq.	5	1 0	76	23·4	19·62	142	96
D Swaffham Prior Vicarage	Rev. L. Fisher	5	1 0	44	21·3	16·90	133	93
D Oakington	A. H. V. Bloom, Esq.	5	3 0	27	..	18·06	111	92
D Burwell (Manor House)	late R. Stephenson, Esq.	5	1 0	50	23·0	16·53	115	89
D Cottenham (Bernard House)	Miss K. Bull	5	1 6	30	22·1	17·38	138	99
D Conington (Conington Hall)	P. T. Gardner, Esq.	5	1 0	50	24·7	18·91	141	97
D Fordham (London House)	W. V. Bloom, Esq.	5	1 0	30	21·4	16·30	112	88
D Stretham Engine	late Mr. J. Housley	9	4 9	13	21·2	15·19	101	85
D Stretham (Orchard House)	Miss Wright	8	4 6	42	22·0	15·88	119	85
D Littleport (Highfield House)	H. G. Martin, Esq.	8	2 7	67	21·3	16·91	126	88
D Chatteris(Aylesby House)	P. A. S. Ruston, Esq.	5	1 6	31	22·5	18·40	140	102
d Chatteris (The Priory)	H. E. Fryer, Esq.	5	1 0	32	22·6	16·20	..	92
D March	L. I. Clark, Esq.	9	2 0	10	22·8	19·72	103	101
D Upwell (Marmont Priory Lock)	L. I. Clark, Esq.	8	1 1	..	20·6	18·64	123	92
3.—NENE. 101 sq. mi.								
D Stanground Sluice	L. I. Clark, Esq.	8	1 6	15	20·3	20·00	137	98
D Parson Drove (Clows Cross)	W. Kingston, Esq.	8	1 0	6	22·1	17·85	136	95
D Wisbech (Horticultural Sta.)	W. G. Kent, Esq.	5	1 0	10	..	19·80	141	93
D Wisbech (Queen's Road)	C. Dann, Esq.	5	10 0	10	26·3	19·04	133	91
d Wisbech (Tydd Manor)	A. H. Carter, Esq.	5	6 6	..	..	18·73	..	..

DIVISION IV.—EASTERN COUNTIES.

ESSEX. (Area, 1532 sq. mi.)

1.—THAMES.—Lea. 132 sq. mi.								
D West Ham (Abbey Mills)	London County Council	8	0 10	15	..	20·74	121	101
D Leyton (Sewage Works) (+A)	A. P. Howell, Esq., C.E.	5	0 9	22	..	20·82	130	92
D Leytonstone (High Road)	Miss G. Lister	5	1 3	100	..	21·79	155	60
D Lea Bridge (Waterworks)	Met. Water Board	8	0 6	23	..	19·01	113	90
D Walthamstow (Ferry Lane)	Met. Water Board	5	0 6	40	23·9	20·84	138	93
D Woodford (Haggar Lane)	Met. Water Board	8	0 8	176	..	20·85	123	99
D Buckhurst Hill Reservoir	Met. Water Board	8	1 6	275	..	23·03	130	101
D Buckhurst Hill (Ardmore)	Miss E. F. Howard	8	1 0	270	..	24·41	131	114
D Chingford (Crescent Road)	Miss M. L. Mathieson	5	0 10	200	..	22·81	143	104
D Chingford Mill	Met. Water Board	8	0 6	40	..	22·75	141	96
D Loughton (High Beech Res.)	Met. Water Board	5	0 8	376	..	24·30	133	113
D WalthamAbbey(RammeyMarsh)	Met. Water Board	8	1 0	60	..	21·74	136	95
D Waltham Abbey (Pumping Stn.)	Met. Water Board	8	1 3	66	..	22·14	134	95
d Waltham Abbey (Gunpr. Fact.)	The Superintendent	5	1 0	64	..	21·66	..	..
D Hatfield Broad Oak(Barrington)	A. H. Gosling, Esq.	5	0 10	300	..	24·65	135	98
Bishop Stortford (Hassobury)	Major W. S. Gosling	5	0 10	290	..	22·90	135	..
D Stansted (Birchalls)	Col. R. Egerton	5	1 0	290	..	24·70	142	116

* Gauge moved from Grantchester Mill on 30th Sept., 1929.

DIVISION IV.—EASTERN COUNTIES—(*con.*).

	STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
	ESSEX—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	1.—THAMES—Lea—(*con.*).								
D	Elsenham (Gaunts End)	H. Cotterell, Esq.	5	1 0	363	24·6	23·70	148	104
D	Stansted (Hargrave Park)	Arthur Alder, Esq.	5	1 7	..	..	23·96	137	107
D	Stansted (Bentfield Place)	L. D. Gosling, Esq.	5	0 9	300	..	23·86	135	104
	2.—THAMES—Roding &c. 316 sq. mi.								
D	Tilbury (Park View Observatory)	S. A. Hill-Willis, Esq., C.E.	5	1 0	6	..	18·40	101	80
D	Grays (Stanley Road)	Engineer, U.D.C.	5	3 3	21	..	18·67	100	82
D	Rainham (Riverside Sew. Works)	H. E. Lightfoot, Esq., C.E.	8	1 6	5	..	16·85	118	79
D	East Ham (Central Park)	Public Health Dept.	12	1 0	15	..	21·29	130	96
D	East Ham Well	Met. Water Board.	8	1 0	17	..	19·91	134	93
D	Dagenham Sanatorium	The Medical Superintendent	5	1 0	18	..	17·45	126	84
D	Forest Gate (Monega Road)	C. E. Golding, Esq.	5	0 11	20	..	20·33	143	99
D	Ilford Sewage Works	J. Sandford, Esq.	5	1 1	31	..	24·45	115	83
D	Leigh (Brick House)	Miss I. Bentall	5	0 10	136	..	17·30	115	89
D	South Benfleet (Hillside Road)	H. A. Marshall, Esq.	5	1 0	55	..	17·99	127	90
d	Vange Pumping Station	Southend Water Works Co.	5	1 0	43	..	17·45	..	..
D	Manor Park (City of L'dn. Cemy.)	The Superintendent	5	0 6	50	..	20·27	113	92
w	Pitsea Pumping Station	Southend Water Works Co.	5	1 0	28	..	17·59	..	..
D	Horndon (Eastern Sew. Works)	W. J. Grant, Esq.	8	1 6	23	..	17·64	132	91
D	Hornchurch	Surveyor, U.D.C.	8	1 8	46	..	19·07	132	93
D	Wanstead (Red Bridge)	Met. Water Board.	5	0 6	45	..	19·15	123	94
D	Wanstead (Nightingale Farm)	J. J. Barker & Sons	5	0 9	94	..	21·46	125	99
D	Havering-atte-Bower (Fernside)	Benjamin Smith, Esq.	5	1 0	340	..	24·39	153	115
d	Ongar (Marden Ash)	Mrs. Calver.	5	1 6	190	..	(20·93)	..	..
D	North Weald (Canes)	H. W. Hart, Esq.	5	1 0	250	..	23·11	119	100
	3.—CROUCH. 186 sq. mi.								
D	Shoeburyness (New Ranges)	The Meteorological Office	8	1 0	11	18·9	15·53	129	77
D	Southend (The Cliffs)	The Pier Master	8	1 0	90	19·7	16·05	138	82
D	Southend (Kilworth Avenue)	H. J. G. Ralph, Esq.	8	1 0	78	..	17·32	136	89
D	Southend (Waterworks)	Southend Water Works Co.	8	1 0	112	21·1	17·18	126	87
D	Westcliff-on-Sea	Messrs. Boatman, F.S.M.C.	5	1 0	100	..	17·76	154	85
D	Leigh Reservoirs	Southend Water Works Co.	5	1 0	177	..	17·70	97	80
D	Great Wakering	The Meteorological Office	5	1 0	11	18·4	16·01	120	81
D	Little Wakering Vicarage	Rev. B. S. Mercer	5	0 11	15	..	18·07	118	90
D	Eastwood Pumping Station	Southend Water Works Co.	8	1 0	50	..	18·64	150	90
D	Thundersley Reservoir	Southend Water Works Co.	5	1 0	277	..	17·46	114	84
w	Nevendon Pumping Station	Southend Water Works Co.	5	1 0	43	..	17·36	..	..
D	Billericay (Service Tank)	Southend Water Works Co.	5	1 0	310	..	18·81	114	89
D	Billericay (Ramsden Hall)	T. W. Bacon, Esq.	5	0 9	260	..	21·74	129	102
d	Wickford (Runwell Hall)	Miss A. Kemble.	5	0 7	75	24·2	19·70	..	..
D	Woodham Ferres Rectory	Rev. W. H. Deane	5	0 10	100	..	16·86	117	87
D	Southminster (Dudswell)	Mrs. H. G. Owen	5	0 10	60	..	19·43	124	107
D	Southminster (The New Moor)	E. J. Attenborough, Esq.	..	..	..	..	16·90	108	90
D	Bradwell-on-Sea (Bradwell H.)	H. D. Chillingworth, Esq.	5	4 3	27	20·7	21·44	110	94
	4.—BLACKWATER. 425 sq. mi.								
D	Shenfield (The Lodge)	Harcourt P. Landon, Esq.	5	1 0	305	..	23·14	133	95
D	South Hanningfield (Bearmains)	C. W. Gardner, Esq.	8	1 10	220	..	19·96	113	95
D	Ingatestone (Fryerning)	A. E. Christy, Esq.	5	0 9	290	..	23·64	168	104
d	Great Baddow (R)	S. L. Sams, Esq.	8	1 6	150	..	23·68	135	99
D	Danbury Rectory	Rev. J. Bridges Plumptre.	5	1 0	365	22·7	21·79	143	100
D	Maldon	Town Clerk	5	1 0	14	..	19·25	125	96
D	Writtle (Melbourne)	J. A. Rosling, Esq.	5	0 9	140	..	23·53	157	103
D	Chelmsford (County Labor'tory)	D. B. Johnstone-Wallace, Esq.	5	1 0	140	22·3	22·17	143	97
D	Chelmsford (High Street)	Miss F. J. Chancellor	8	1 6	98	22·5	22·57	142	105
D	Langford (Treatment Plant)	Southend Water Wks. Co.	8	1 5	40	..	21·00	140	99
D	Witham (Wickham Hall)	D. B. Smith, Esq.	5	0 10	60	..	20·39	114	91
D	Good Easter	East Anglian Inst. Agric.	5	1 0	185	..	19·61	131	92
D	Pleshey Vicarage	Rev. C. H. B. Woodd, M.A.	8	1 3	200	..	21·47	143	93

DIVISION IV.—EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
ESSEX—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—BLACKWATER—(*con.*).								
D Witham (Faulkbourne Hall)	Miss C. L. Parker	5	1 0	100	..	20·99	137	97
D Little Leighs (Lavender Leez)	W. C. Neild, Esq.	5	1 2	192	..	21·63	118	93
D Messing Vicarage	Rev. W. G. Whittam	5	2 1	120	..	23·99	125	104
D Kelvedon (Lawn House)	F. Randolph-Symmons, Esq.	5	1 0	96	..	23·04	136	106
D Kelvedon (White Barn)	Messrs. W. & H. J. Sheldrake	5	1 5	135	..	21·88	132	96
D Blacknotley (Lynderswood Ct.)	Sir J. G. Broodbank	5	1 0	245	..	21·47	128	104
D Felsted School	E. H. Lockwood, Esq.	5	0 10	248	22·9	20·51	125	97
D Great Dunmow	Messrs. Hasler & Co., Ltd.	5	1 0	200	..	22·15	121	97
D Rayne (Staneway)	Mrs. Burt	5	1 1	247	..	21·15	123	94
D Great Saling (Woolpits)	Mrs. Joseph Smith	5	0 9	284	..	20·71	150	99
D Shalford (Littles)	W. F. Hart, Esq.	5	1 0	280	..	21·22	126	95
D Gt. Bardfield (South Lodge)	A. W. Brunwin, Esq.	5	1 0	250	..	22·13	137	104
5.—COLNE & C. 283 sq. mi.								
D Clacton-on-Sea	The Town Clerk	8	1 0	55	19·3	20·86	144	96
Great Clacton (Clay Hall)	Miss E. A. Smith	5	1 0	45	..	19·86	..	76
d Tiptree (Brook House)	A. Hitchcock, Esq.	5	0 11	120	..	22·83	..	89
D Layer Breton (The White House)	E. H. Barritt, Esq., J.P.	5	1 0	89	..	21·80	143	101
D Walton-on-the-Naze	The Town Clerk	5	1 0	66	..	22·11	122	91
D Colchester (King's Ford)	Cmdr. E. A. Digby, R.N., K.C.	5	0 10	103	..	21·74	109	97
D Copford (The Grove)	Miss M. Harrison	8	1 0	190	..	21·44	115	91
D Colchester (Hythe Gas Works)	Colchester Gas Co.	8	0 10	12	..	21·44	137	82
D Colchester (Boro'Surveyor'sOff.)	H. Collins, Esq., C.E.	8	1 2	87	..	22·49	137	107
D Colchester (Waterworks)	A. Hammond, Esq.	5	1 5	37	..	20·29	141	96
D Lexden (Hill House, S. No. 2)	S. F. Hurnard, Esq.	5	1 0	90	..	21·44	137	94
D Great Bromley (Broughton)	W. A. Roberts, Esq.	5	1 0	115	..	21·78	117	103
D Earls Colne (Grammar School)	G. R. Hill, Esq.	5	1 0	168	..	20·73	134	99
Earls Colne (Chalkney House)	H. F. Hills, Esq.	5	1 0	180	23·2	20·16	131	..
D Earls Colne (Colne House)	Lieut.-Col. T. G.C.Reynolds	5	1 0	180	..	22·79	149	100
Halstead (Attwoods)	R. E. Vaizey, Esq.	5	1 0	200	..	24·98	138	103
D Halstead (The Brewery)	F. N. Adams, Esq.	5	1 0	139	..	24·31	138	96
Gt. Maplestead (Monk's Hall)	Miss J. Miller	5	0 9	230	..	24·53	..	82
D Great Yeldham Hall	G. A. Goodchild, Esq.	5	1 0	200	..	22·18	136	103
6.—STOUR. 110 sq. mi.								
D Dovercourt	The Borough Surveyor	5	1 0	47	..	22·07	106	80
D Mistley (The Maltings)	Messrs. Brooks (Mistley), Ltd.	..	..	..	..	20·87	137	88
D Sudbury (Bulmer Lodge)	Miss M. A. Burke	5	1 3	202	25·6	22·87	134	104
7.—OUSE. 80 sq. mi.								
d Widdington Rectory	Rev. Jas. W. Court	5	1 6	340	..	22·48	..	95
D Great Chesterford Mills	E. H. King, Esq.	5	1 0	130	..	22·08	135	101
SUFFOLK. (Area, 1489 sq. mi.)								
1.—STOUR. 271 sq. mi.								
D East Bergholt (Ackworth Ho.)	A. Harwood, Esq.	8	1 6	145	..	21·17	148	107
D Capel St. Mary School	Bernard B. Taylor, Esq.	5	1 6	156	..	24·18	133	108
D Assington Hall	Mr. F. J. Bullen	5	1 0	200	..	22·33	156	105
D Great Cornard (The Limes)	E. Oliver, Esq.	5	0 9	85	..	21·21	122	95
D Sudbury (Friars St.)	E. Ransom, Esq.	5	1 6	93	..	23·01	175	107
D Hadleigh (Penlands)	E. A. Lee, Esq.	5	1 0	185	..	22·48	151	101
D Waldingfield (Holbrook Hall)	Mrs. Frank Ramsay	5	1 1	185	..	22·34	149	107
D Clare (Nethergate House)	Lieut.-Col. R. C. Bond, D.S.O.	5	1 8	60	..	21·17	126	91
D Hawkedon Rectory	Rev. B. P. Oakes	5	2 5	303	25·0	21·89	156	104
D Cockfield Rectory	Rev. Canon Edwin Hill	5	1 0	305	24·8	19·79	167	93
2.—ORWELL. 166 sq. mi.								
D Ipswich (Rookwd., Copdock) (+A)	F. L. Bland, Esq.	8	1 0	164	24·5	23·20	140	95
D Ipswich (Roundwood)	Alfred G. Glenn, Esq.	5	1 0	145	..	21·98	138	85

DIVISION IV.—EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
SUFFOLK—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—ORWELL—(*con.*).								
D Ipswich (Museum)	F. M. Cullum, Esq.	8	0 10	73	..	21·95	138	91
D Ipswich (All Saints' Vic.)	Rev. S. C. Calver	5	1 5	..	..	20·47	146	89
D Ipswich (Dale Hall)	Percy Turner, Esq.	8	1 0	135	..	20·86	139	88
Elmsett (Laurel Cottage)	A. E. Ladbrook, Esq.	9	2 0	210	..	21·98	..	110
d Nettlestead (High Hall)	A. S. P. White Cooper, Esq.	5	1 6	236	..	21·17	..	85
D Coddenham (Shrubland Park)	Mr. A. C. Horton	5	1 6	162	..	21·19	137	95
D Gosbeck (Hall Farm)	A. A. Geater, Esq.	5	1 6	200	..	19·50	128	96
D Stowmarket	Capt. F. Creagh-Osborne, C.B.	5	1 0	117	..	21·52	131	88
D Haughley (Haughley House)	Mrs. S. H. Creagh	5	0 9	180	..	17·99	133	90
3.—DEBEN & C. 466 sq. mi.								
D Felixstowe Aerodrome..(+A)	The Meteorological Office..	8	1 0	15	..	20·55	122	83
D Waldringfield	Major B. R. M. Glossop...	8	1 6	70	..	22·09	114	87
D Woodbridge Abbey	Col. R. J. Carthew	8	1 2	46	..	23·41	152	91
D Orford (The Gables)	Miss E. A. Rope	5	1 1	30	..	20·96	140	96
D Melton (Greylands)	Miss Jervis-White-Jervis ..	5	1 6	50	..	24·51	112	96
D Melton (St. Audrey's Hospital)	A. F. Philpott, Esq.	8	1 2	74	..	21·73	151	95
D Melton (Bromeswell Rectory)	Rev. F. Shadwell	5	1 5	35	..	22·02	141	85
D Henley Hall	Mrs. Gascoigne	5	2 0	150	..	23·55	123	106
d Rendlesham Hall	Mr. H. Long	5	1 0	88	23·1	22·14	..	..
D Campsea Ashe (High House)	Viscount Ullswater, G.C.B.	8	1 0	60	..	22·40	129	92
Charsfield (Red House)	Hugh P. Youngman, Esq.	5	1 9	150	..	22·14	..	..
D Pettaugh (Laffitte Hall)	W. B. Damant, Esq.	5	1 6	190	..	21·92	131	91
D Snape (Green Heys)	G. H. Garrett, Esq.	5	1 6	50	..	21·63	122	89
D Snape (Wadd House)	Capt. E. H. Buxton	5	1 0	25	..	(21·40)	(133)	(89)
D Leiston (Lower Abbey)	Miss M. K. Rope	5	1 0	30	..	21·23	126	89
D Halesworth Rectory	Rev. H. C. Newbery	5	1 0	50	..	23·00	142	107
D Halesworth (Estate Office)	G. W. Stanford, Esq.	5	1 5	120	..	22·95	146	112
D Wangford (Ford House)	Hon. Agnes Eden	5	0 10	25	..	19·98	131	101
D Wrentham (Sotterley Hall)	F. W. C. Chartres, Esq. ..	5	0 10	70	..	21·23	140	96
4.—YARE & C. 208 sq. mi.								
D Horham Rectory	Rev. J. E. Soden	5	1 3	175	..	24·29	146	105
D Eye (Brome)	C. J. Barradell, Esq.	5	1 1	142	..	19·85	136	90
D Oakley	R. L. T. Clarkson, Esq. ..	5	1 0	75	..	23·68	170	93
D Rumburgh Vicarage	Rev. W. Linton Wilson ...	5	1 0	187	..	21·01	159	86
D Bungay (Flixton Hall)	Sir Shafto Adair, Bart. ...	5	1 0	79	..	21·41	132	92
D Lowestoft (Secondary School)	R. Robertson, Esq.	5	1 0	82	23·5	18·58	134	88
D Lowestoft (Briar Clyffe)	H. Hollingsworth, Esq. ..	..	..	..	..	18·79	120	86
M Blundeston House	L. J. Peto, Esq.	..	..	30	..	19·72	..	..
D Herringfleet House	G. H. Wyllys, Esq.	5	1 0	55	..	18·07	149	104
d Lound School	Miss F. B. Bartlett	5	0 6	40	..	18·07	..	..
D Lound Pumping Station	Lowestoft Water & Gas Co.	8	1 0	34	..	19·55	115	90
D Hopton (Hopton House)	C. S. Orde, Esq.	5	1 0	..	..	18·50	117	95
D Fritton Warren	Major-Gen. R. Upcher, D.S.O.	5	1 0	42	..	20·97	138	106
D Fritton Hall	Major A. R. Buxton	8	0 11	30	..	20·09	163	100
D Yarmouth (Burgh Hall)	H. P. Frederick, Esq.	5	0 10	40	24·4	19·86	146	99
5.—OUSE. 378 sq. mi.								
d Newmarket (Sewage Outfall)	W. H. Eley, Esq., C.E. ...	5	1 0	81	..	17·95	..	86
d Bury St. Edmunds (Mill Rd.)	Dr. C. S. J. Kilner	5	1 0	176	..	20·32	..	..
D BurySt.Edmunds(NorthgateSt.)	Rev. J. S. Pratt	5	1 0	100	..	20·23	130	88
Bury St. Edmunds (Westley H.)	Mrs. Burrell	5	1 6	226	25·1	21·32	..	121
d Bury St. Edmunds (Beet Sugar Factory)	United Sugar Co., Ltd.	5	0 6	160	..	(17·81)	..	..
D Fornham St. Martin	Mr. H. Parker	5	1 0	125	..	18·78	119	88
d Hengrave Hall	Sir John Wood, Bart. ..	5	1 5	85	23·1	19·78	..	83
D Bury St.Edmunds (TrostonHall)	F S. Beauford, Esq.	5	1 0	130	..	18·40	134	100
D Mildenhall	H. R. W. Forster, Esq. ...	5	1 3	50	..	17·84	143	91
Barningham (The Beeches)	Miss A. K. Lingwood	5	0 9	136	..	19·81	..	..
D Elveden Hall	The Earl of Iveagh, C.B.	5	1 0	130	..	19·15	160	93

DIVISION IV.—EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
NORFOLK—(Area, 2044 sq. mi.)		*in.*	*ft in.*	*ft.*	*in.*	*in.*		
1.—YARE. 658 sq. mi.								
D Diss (The Cedars)	Dr. H. M. Speirs	5	0 8	108	..	18·26	133	93
D Pulham St. Mary (Brook House)	E. Beevor, Esq.	5	1 1	120	..	21·01	138	95
D Pulham St. Mary (Hill House)	W. G. Rutter, Esq.	5	1 0	120	24·7	24·67	179	115
D Denton Rectory	Rev. Canon T. H. Bindley	5	0 10	50	23·4	24·15	153	99
D Ditchingham	W. G. Rutter, Esq.	5	1 0	25	23·9	20·30	166	89
D Beccles (Raveningham Hall)	N. H. Bacon, Esq.	8	1 0	60	24·6	23·47	124	95
D Hapton Parsonage	Lt.-Col. H. C. Copeman	5	1 5	100	..	21·12	138	100
D Spooner Row (Wattlefield Hall)	E. F. Routh Clarke, Esq.	5	1 0	161	..	22·38	128	104
D Lodden (Chedgrave Manor)	C. E. Dupuis, Esq.	5	1 6	17	24·2	20·14	136	99
D Wymondham (Morley School)	T. E. Ormond, Esq.	5	1 0	157	25·3	23·47	180	102
D Wymondham	J. B. Pomeroy, Esq.	8	1 3	118	..	21·63	130	96
D Hingham	F. B. Law, Esq.	5	1 0	193	25·1	24·92	148	108
D Keswick Old Hall	E. Knight, Esq.	5	1 0	90	26·4	22·56	161	98
D Gorleston Coastguard Station	The Meteorological Office	8	1 0	16	24·5	18·74	147	81
D Norwich (Claremont Road)	W. S. Tillett, Esq.	8	1 0	100	..	22·39	160	98
D Norwich (Eaton)	A. W. Preston, Esq.	5	1 0	98	26·5	22·76	156	99
D Norwich (Carrow Abbey Gar.)	The Misses Colman	5	1 0	40	25·2	22·74	139	101
D Norwich (Ipswich Road)	J. H. Willis, Esq.	5	1 0	110	..	22·48	161	102
D Norwich (Heigham Cemetery)	L. Alan Jewell, Esq.	5	1 2	37	25·5	23·53	146	95
D Thorpe St. Andrew (Pine Banks)	H. J. Jarrold, Esq.	5	1 7	140	..	22·11	155	101
Norwich (Marlingford Hall)	Major E. H. Evans-Lombe	5	1 0	50	26·9	23·91	..	131
D Sprowston (Oak Lodge)	A. Cozens Hardy, Esq.*	5	1 0	100	25·2	22·53	168	100
D Drayton Hall	C. H. Walter, Esq.	5	1 0	..	26·0	24·18	100	91
D Swanton Morley Rectory	Rev. R. N. Usher	5	1 0	105	24·3	24·65	136	105
D Bylaugh Park	Mrs. Rice	5	1 0	..	24·8	23·93	140	112
D Swanington (Heath House)	P. Norgate, Esq.	5	2 3	101	25·6	24·22	188	111
D East Bilney Hall	K. W. Hervey, Esq.*	5	1 0	140	26·6	23·81	150	110
D Cawston Rectory	Rev. T. H. Marsh	5	1 0	120	26·6	25·48	166	106
2.—YARE—Bure & c. 368 sq. mi.								
D Acle	Miss Davie*	5	0 6	51	25·1	21·68	161	98
D Sprowston (The Church Farm)	H. B. Cowell, Esq.	5	1 0	93	..	22·17	137	98
D Yarmouth (Ormesby St. Michael)	Gt. Yarmouth W. W. Co.	8	1 0	22	26·2	21·43	153	102
D Coltishall (Manor House)	F. A. Bainbridge, Esq.	5	0 11	20	25·5	22·19	142	99
D Wroxham (Hoveton Hall)	G. F. Buxton, Esq., C.B.	5	1 0	25	26·5	24·33	166	110
D Barton Turf Hall	J. M. Wood, Esq.	8	0 10	40	..	20·22	122	102
D Aylsham (Rippon Hall)	Major H. S. Marsham	5	0 7	90	26·4	23·39	124	108
D Worstead (Lyngate Cottage) (+A)	Miss F. E. Hooper	8	1 3	50	26·5	20·90	148	103
Hindolveston (School House)	Owen Potter, Esq.	5	1 0	300	..	25·44	..	..
D Colby School	John Blott, Esq.	5	1 0	50	..	23·29	172	113
D Walcott-on-Sea	Lt.-Col. R. S. Hunt, D.S.O.	5	1 0	20	..	20·59	134	102
D Swafield Rectory	Rev. H. Muir	5	0 10	100	25·5	21·97	144	103
D North Walsham (Gunton Park)	Lord Suffield	8	1 3	105	25·9	23·23	123	110
D Cromer (Northrepps Hall)	Lt.-Col. C. R. Gurney	5	1 2	225	26·7	21·55	152	115
D Hanworth Rectory	Rev. Wilson W. White	5	0 10	..	..	22·73	149	106
3.—STIFFKEYS & C. 290 sq. mi.								
D Sandringham House Gardens	Mr. T. H. Cook	5	0 9	121	27·0	24·71	175	113
D Syderstone (The Rectory)	Rev. B. D. Reed	5	1 0	210	..	22·37	158	107
Melton Constable Park	W. F. Baker, Esq.	8	0 11	287	..	23·95	..	..
D Walsingham	Rev. Canon J. Blake-Humfrey	5	0 10	54	25·9	26·44	166	115
D Cromer (The Warren)	F. H. Barclay, Esq.	5	1 0	101	24·1	21·40	139	102
D Cromer (Gas Works)	Cromer U.D.C.	5	1 0	196	24·4	20·49	149	96
D Langham Episcopi Vicarage	Rev. John H. Toy*	5	0 6	139	23·2	21·95	155	109
D Sheringham Hall	Miss E. Upcher	5	0 9	130	23·6	19·67	145	99
D Sheringham (Skelding)	F. Hall Smith, Esq.	8	1 0	60	..	25·74	182	114
d Wells (Holkham Hall)	Earl of Leicester, G.C.V.O.	5	1 0	43	23·1	22·53	..	..
D Hunstanton	H. B. Belding, Esq.	5	1 1	105	..	17·83	136	92

* *Per* Norfolk Rainfall Organisation.

DIVISION IV.—EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
NORFOLK—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—OUSE & C. 709 sq. mi.								
D Garboldisham Manor	Major E. W. Denny, D.S.O.	8	1 0	70	23·2	19·38	148	94
D Thetford (Ford Street Gdns.)	Mr. A. Pipe	5	1 0	44	23·4	21·21	98	84
D Thetford (Kilverstone Hall)	Baron Fisher of Kilverstone	8	1 0	70	21·7	20·50	131	93
D Thetford (Waterworks)	C. W. Holmes, Esq.	8	1 0	165	23·8	21·53	151	99
D Attleborough (Quidenham Hall)	Earl of Albemarle	5	1 0	100	24·1	22·56	100	95
D Hargham Hall	Sir H. R. Beevor, Bart., M.D.	8	0 6	100	24·9	22·04	138	99
D Methwold (Dyke House)	Earl Russell	5	1 0	30	..	21·17	137	89
Mundford (Lynford)	T. P. Godfrey, Esq.	5	1 0	80	..	21·56	..	..
D Caston (Flaxmoor)	Lt.-Col. T. S. N. Hardinge	5	1 1	150	..	22·38	157	100
D Watton	A. A. Gompertz, Esq.	5	1 0	166	25·7	25·30	137	104
D Great Cressingham	J. W. Montgomery, Esq.	5	1 0	90	..	25·38	173	119
D Downham (Dial House)	Messrs. T. H. Wenn & Co.	5	1 6	..	..	19·17	125	91
D Downham (High Street)	J. M. Jackson, Esq.	5	1 3	16	..	18·78	129	94
d Outwell (Well Creek Sluice)	L. I. Clark, Esq.	8	2 6	16	22·0	19·13	..	..
d Wallington Hall	J. L. Luddington, Esq.	5	1 0	58	23·7	21·41	..	88
D Swaffham (The Villa)	Mr. J. H. Mack	5	0 9	246	26·3	23·63	146	102
d Swaffham	Messrs. Vynne & Everett, Ltd.	5	2 7	210	..	23·82	110	99
D Sporle	T. S. Matthews, Esq.	5	4 0	230	..	24·02	175	115
D Little Dunham (Dunham Cott.)	A. G. Copeman, Esq.	5	0 11	265	27·2	25·31	164	114
Great Dunham (The Rectory)	Rev. E. C. S. Upcher	5	1 0	310	26·5	(24·54)	138	109
D Wiggenhall (St. Germans Sluice)	L. I. Clark, Esq.	8	1 6	..	23·1	21·90	139	109
D East Winch (Holland House)	J. C. Cottam, Esq.	5	1 6	55	23·3	23·61	146	107
d King's Lynn (Manure Works)	J. Brown, Esq.	5	1 2	10	..	21·25	..	..
D Tittleshall	Capt. H. J. Buxton	5	1 6	285	26·8	23·23	145	111
D Grimston (School House)	J. R. Steward, Esq.	5	1 2	62	..	25·35	194	111
5.—NENE. 19 sq. mi.								
D Emneth (Inglethorpe Manor)	F. M. Bland, Esq.	5	1 0	6	22·4	19·93	125	101

DIVISION V.—SOUTH WESTERN COUNTIES.

WILTSHIRE. (Area, 1375 sq. mi.)

1.—LOWER AVON. 386 sq. mi.								
D Westbury (Cambridge House)	Dr. W. K. A. Richards	5	1 0	190	..	31·92	141	106
D Westbury (The Vicarage)	K. E. Alexander, Esq.	5	1 0	181	..	30·66	145	108
D Market Lavington (Old House)	Miss A. Pleydell Bouverie.	5	0 9	290	29·0	27·42	146	108
d Gt. Cheverall (Timoleague)	Rev. H. S. Travers	5	0 6	380	..	(24·88)	..	..
D Trowbridge (Town Hall)	The Engineer	8	1 2	131	..	26·37	154	105
D Bradford (Woodleigh)	A. Scratton, Esq.	5	3 0	226	31·7	29·15	140	114
D Bradford (Winsley Manor)	E. W. Knatchbull, Esq.	5	0 8	400	29·9	31·42	150	112
D Bradford (Manvers House)	Dr. C. E. S. Flemming	5	1 6	130	29·9	28·09	139	108
D Seend (Cleeve House)	(R) Lt.-Col. W. C. Heward Bell	8	1 0	160	27·5	26·69	154	110
D Holt (The Retreat)	A. V. H. Beaven, Esq.	5	1 0	145	30·3	28·66	152	116
d Devizes (Wilts Co. Mental Hospl.)	Dr. S. J. Cole	8	1 0	385	28·0	26·35	..	..
d Devizes (Broadleas)	W. H. L. Ewart, Esq.	5	1 0	400	..	28·05	148	107
D Devizes (Highclere)	H. W. Green, Esq.	5	1 6	450	28·3	28·10	143	104
D Great Chalfield	Major R. F. Fuller	5	1 2	165	28·6	29·14	141	112
D Little Chalfield	Mrs. T. H. Baker	5	1 0	180	..	27·09	155	112
D Calne (High Street)	E. W. Brown, Esq.	5	1 0	242	28·9	28·06	131	108
Calne (Compton Bassett Gdns.)	Mr. H. Welch	5	0 10	384	30·7	29·63	..	..
D Chippenham (Rowden Hill)	Miss A. M. Collen	5	1 4	223	30·7	30·33	148	123
Chippenham (Kington Langley)	Mrs. Charles Garnett	8	1 0	172	30·3	27·62	..	..
Grittleton	Lt.-Col. Sir A. D. Neeld, Bt., D.L., C.B.	..	..	..	..	33·71	..	..
D Wroughton (Basset Down Ho.)	Mrs. Arnold Forster	5	1 0	500	29·8	30·08	133	107
D Tockenham Manor (R)	Major G. J. Buxton	8	3 0	400	..	25·65	161	102

DIVISION V.—SOUTH WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
WILTSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—LOWER AVON—(*con.*).								
w Luckington Court	Col. Sir E. Johnson-Ferguson, Bt.	5	0 8	400	30·2	27·66	..	..
D Malmesbury (Burton Hill Ho.)	H. L. Storey, Esq.	8	6 6	250	..	27·56	164	111
D Malmesbury (Lea House)	Rev. H. Milnes-Walker	5	1 6	260	..	26·44	117	102
D Malmesbury (Easton Grey)	Mr. P. A. Day	5	0 9	355	31·6	31·53	128	110
2.—STOUR. 33 sq. mi.								
D Mere (Charnage)	A. R. White, Esq.	5	1 0	426	33·8	33·34	158	111
D Stourhead	Sir H. H. A. Hoare, Bart.	5	1 0	583	38·1	34·97	133	114
Kilmington Rectory	Rev. H. G. Fox-Strangways	5	1 6	710	39·8	39·55	178	133
3.—EAST AVON. 554 sq. mi.								
D Longford Castle Gardens	The Earl of Radnor	5	1 0	139	31·4	32·26	150	100
D Fonthill House Gardens	Hugh Morrison, Esq., M.P.	5	1 0	400	37·8	36·72	138	106
D Salisbury (Sewage Works)	W. J. Goodwin, Esq., C.E.	5	1 0	153	29·7	26·37	137	96
D Salisbury (Manor Road)	Miss L. C. D. Awdry	5	1 0	250	29·2	29·61	147	107
D Salisbury (Atherton House)	Wilfrid Fletcher, Esq.	5	1 0	250	30·4	29·72	148	93
d Salisbury (Newlands)	Dr. T. W. Newton Dunn	5	1 0	175	..	29·76	..	97
D Stratford-sub-Castle (Manor Ho.)	Miss F. Carpenter	5	0 9	168	28·3	29·69	134	102
D Woodford Vicarage	Rev. M. I. Holme	5	0 10	200	..	31·92	166	102
D Porton (W.D. Experimental Stn.) (+A)	Meteorological Office	5	1 0	363	27·8	27·23	148	97
D Steeple Langford (Woodstock)	Miss A. J. Powell	5	1 0	257	..	32·97	133	96
D Maiden Bradley House	The Duke of Somerset	5	1 6	600	38·4	38·56	124	111
D Maiden Bradley	R. Luff, Esq.	4	3 0	600	..	37·31	147	123
D Heytesbury	Dr. Hammond T. Hinton	5	1 0	300	31·7	30·19	156	104
D Larkhill (Sch. of Artillery) (+A)	The Meteorological Office	5	1 0	440	26·5	27·59	133	98
D Warminster (Smallbrook Ho.)	G. E. Vicary, Esq.	5	0 8	420	..	34·17	148	109
D Orcheston St. Mary Vicarage	Rev. S. C. Winterton	5	0 9	285	..	28·77	140	97
d Marlborough (Wilcot Manor)	Lady Ernest St. Maur	5	1 0	..	..	31·13	..	..
D Bishops Cannings	A. J. Combes, Esq.	5	1 0	446	30·3	29·34	179	116
4.—TEST. 77 sq. mi.								
D Landford (Northlands)	Cedric R. Boult, Esq.	5	1 0	180	30·7	32·54	136	102
D Redlynch Grange	Maj. E. Fitz-Herbert Wright	5	1 0	300	..	34·07	144	106
D Ludgershall (Conholt Park) (R)	E. A. Wigan, Esq.	8	1 0	800	33·9	32·47	138	105
5.—THAMES—Kennet. 169 sq. mi.								
Bishops Cannings (Shepherds Shore)	C. G. Barrett, Esq.	8	2 1	564	..	29·84	138	103
D Marlborough College	W. F. Harling, Esq.	5	1 0	424	31·1	32·47	142	112
Marlborough (Salisbury Road)	E. Kinder, Esq.	5	1 4	450	..	32·28	..	..
D Aldbourne (Upham House)	Lady Currie	5	1 2	580	30·3	31·59	133	111
6.—THAMES—Cole & c. 156 sq. mi.								
d Chiseldon Vicarage	Mrs. W. L. Waugh	5	1 2	550	..	30·10	..	..
D Wroughton (Swindon W. W.)	J. B. L. Thompson, Esq., C.E.	8	1 2	448	..	29·41	147	116
D Chiseldon (Hodson House)	A. Ashford, Esq.	5	0 9	560	29·0	30·37	152	112
D Swindon (Commonweal. Sec. Sch.)	G. Williamson, Esq.	5	1 0	469	..	26·60	149	112
D Swindon (Town Gardens)	J. B. L. Thompson, Esq., C.E.	8	1 4	471	27·5	27·43	145	114
D Purton (Restrop House)	Col. A. Canning	5	1 3	444	27·7	25·89	147	114

DIVISION V.—SOUTH WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
DORSETSHIRE. (Area, 988 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—PARRETT. 61 sq. mi.								
D Evershot (Melbury House)	Mr. W. G. Lee	5	2 0	460	38·7	48·58	138	116
D Chedington Court	Sir Henry Peto, Bart.	8	1 0	605	38·5	40·73	146	108
D Leigh Vicarage	Rev. T. L. Jenkins	5	0 6	300	36·9	43·06	142	116
d Sherborne (St. Edmunds)	C. T. Hooper, Esq.	5	3 2	200	..	(31·99)	(163)	(117)
D Sherborne Castle	Mr. Edwin Hill	5	1 0	195	32·5	34·02	146	114
D Sherborne (Crendle Court)	A. Tyrwhitt Drake, Esq.	5	0 9	360	..	35·17	131	112
D Sherborne (Barton Gardens)	C. E. Bean, Esq., C.E.	8	1 0	285	..	33·16	157	111
Sherborne (Castleton)	Reading T. Grantham, Esq.	5	1 0	220	31·8	34·83	..	103
2.—AXE. 25 sq. mi.								
D Forde Abbey	G. D. Roper, Esq.	5	0 10	220	37·7	40·49	114	100
3.—FROME & C. 502 sq. mi.								
D Portland Bill (New Lighthouse)	The Meteorological Office.	8	1 0	32	25·2	25·85	116	104
D Portland (H.M. Naval Depot).	The Works Officer	8	1 6	25	..	31·93	147	117
Weymouth (Westham)	G. Nicolson, Esq.	5	1 0	20	28·0	29·69	..	..
D Weymouth (Springfield)	Major J. H. C. Devenish	5	1 3	96	27·9	29·05	149	108
D Radipole (Abbotts Court)	C. E. M. Pinney, Esq.	5	0 9	58	..	31·25	144	102
D Swanage	W. Wright, Esq.	5	1 0	40	..	28·46	140	109
D Chickerell (Montevideo)	Mrs. N. M. Richardson, O.B.E.	5	1 0	100	28·9	29·04	162	112
D Tyneham House	Mrs. W. H. Bond	8	1 0	255	32·8	31·47	139	109
D Steeple (Manor House)	Major F. H. Swann	5	1 0	231	34·8	34·24	124	109
D Creech Grange	J. W. G. Bond, Esq, C.B.	5	1 0	241	37·7	34·58	136	111
d Langton Herring (The Manor)	E. A. Sparks, Esq.	5	1 0	160	..	29·04	..	..
D Rodden (Rodden House)	A. H. White, Esq.	5	1 0	85	29·8	30·14	150	104
D Winfrith Rectory	Rev. C. S. Pugh	5	3 0	200	..	34·08	147	116
D Abbotsbury (West Street)	J. C. P. White, Esq.	5	1 6	147	29·2	31·98	136	111
D Upwey (Friar Waddon)	R. Davison, Esq.	5	1 0	215	..	34·34	147	114
D Upwey (Higher Well)	R. Davison, Esq.	5	1 0	289	..	34·45	150	113
D Wareham (East Holme)	Miss L. S. Bond	5	1 0	23	33·9	34·86	140	117
D Wareham (Binnegar Hall)	Mr. J. W. Hayward	5	1 0	65	33·8	33·55	149	114
D Wareham (Stockford)	W. Bond, Esq.	8	0 11	65	33·4	33·29	150	114
D Wareham (Trigon)	Mrs. L. Sturdy	8	1 4	60	32·1	33·50	146	110
D Broadmayne (Charlmont House)	W. R. G. Bond, Esq.	5	1 0	200	..	36·60	174	126
D Dorchester (Lewell Lodge)	E. R. Sykes, Esq.	5	1 0	230	..	34·84	152	112
D Dorchester (Kingscote)	E. A. Ffooks, Esq.	5	1 0	226	34·5	37·31	137	109
D Dorchester Waterworks	H. D. Strange, Esq.	8	1 0	314	36·6	33·86	145	109
D Dorchester (Wollaston House)	Capt. J. E. Acland	5	1 0	200	37·0	34·94	143	108
D Dorchester (Stinsford)	J. Wyndham Hull, Esq.	5	0 10	107	37·4	38·63	144	106
d Dorchester (Birkin House)	Col. W. H. F. Weber, C.M.G., D.S.O.	5	1 0	230	37·4	38·49	144	110
D Puddletown (Clyffe Ho) (A)	Maj. W. Van de Weyer	8	4 4	200	..	37·27	139	107
D Poole (A)	E. J. Goodacre, Esq., C.E.	6	1 6	8	..	29·94	139	101
D Holton Heath (R.N. Cordite Fac.)	The Superintendent	8	1 0	64	29·9	30·38	137	97
D Parkstone (Firgrove)	F. R. Wadman, Esq.	5	1 0	175	28·6	27·97	149	109
D Parkstone (Parkside Road)	H. Blanchard, Esq.	8	1 2	150	..	29·70	145	105
D Parkstone (St. Osmund's Road)	A. D. Stables, Esq.	5	1 3	60	32·2	31·81	138	109
D Parkstone (The Laurels)	J. N. Blanchard, Esq.	5	1 2	115	..	28·80	142	105
d Branksome (Leicester Road)	H. Fayle, Esq.	5	1 0	..	..	(29·86)	..	..
D Branksome (Bourne Valley)	P. G. G. Moon, Esq.	8	1 3	84	30·0	29·51	124	100
D Branksome (Alderney Res.)	P. G. G. Moon, Esq.	8	1 3	213	..	32·44	150	111
d Broadstone (Sewage Works)	T. Wicks, Esq.	5	1 0	26	29·2	30·53	143	107
D Lyme Regis (Horn Bridge)	E. T. Stoward, Esq.	5	1 0	83	33·2	37·66	148	111
D Lyme Regis (Rotherfield)	Rev. E. J. Synge	5	1 0	145	34·3	37·82	163	117
D Lyme Regis (Overton)	C. Wanklyn, Esq.	5	0 10	400	30·9	35·87	179	113
d Bridport (Coneygar)	H. Gordon, Esq., C.E.	5	1 0	110	32·9	33·39	(135)	(100)
D Bridport (Symondsbury)	P. G. Fry, Esq.	5	1 0	200	..	34·81	151	112
D Tolpuddle Parsonage	Rev. Harold R. Long	5	1 2	100	32·9	33·28	152	116
D Puddletown Vicarage	Canon A. L. Helps	5	4 6	200	35·8	41·32	142	113
D Bere Regis (Barrow Hill)	A. E. Lucas, Esq.	5	1 0	120	32·9	32·77	141	107
D Bere Regis (Bloxworth House)	F. G. A. Lane, Esq.	5	1 2	118	33·7	32·79	142	114
D Broadstone (Grange Road)	E. Nimmo, Esq.	5	1 0	160	..	31·57	151	106

DIVISION V.—SOUTH WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
DORSETSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in*	*in.*		
3.—FROME & C.—(*con.*).								
D Wynford House	Lt.-Col. Lord Wynford, D.S.O.	5	1 0	410	43·5	47·10	165	122
D Netherbury (The Chantry)	Lt.-Col. H. L. Kitson	5	1 0	150	35·2	39·56	147	113
d Whitchurch (Longthorns)	Col. G. Pleydell-Railston	..	..	300	..	37·32	..	102
D Milton Abbas (Milton Abbey,.	Mr. C. H. Perkins	5	0 10	333	..	43·33	159	131
D Beaminster (Hamilton Lodge).	Fiennes Trotman, Esq.	5	1 0	210	37·6	42·45	161	101
4.—STOUR. 388 sq. mi.								
D Kinson (Eglinton)	W. C. Keevil, Esq.	5	1 0	45	33·2	33·09	145	103
D Wimborne(CorfeMullenW.W.)	G. V. Sparrow, Esq., C.E.	5	1 0	81	32·9	32·30	131	113
Wimborne(CorfeMullen,For.Hill)	E. Philip Belben, Esq.	8	1 0	300	32·5	34·04	..	..
d Winterbourne Whitchurch Vic.	Rev. H. H. Tilney Bassett	8	1 0	240	35·8	32·87	..	112
D SturminsterMarshall(BailieHo.)	Rev. J. Cross	5	1 0	85	32·6	33·07	138	104
D Wimborne (Stapehill)	W. J. Marchant, Esq.	5	1 0	95	..	31·89	130	101
d Wimborne(Walsford Bridge P.S.)	P. G. G. Moon, Esq.	8	1 3	70	..	31·62	..	99
d Wimborne (Melbury Lodge)	Rev. W. S. Clark	5	1 6	150	..	32·76	..	104
D Wimborne (Codford House)	G.H.Batterbury,Esq., M.D.	5	0 9	69	34·5	32·97	151	109
D Wimborne (Glen Ashton)	H. H. Haines, Esq.	5	1 0	150	..	31·78	137	108
D Blandford (Field's Oak)	H. S. Woodhouse, Esq.	5	1 0	..	34·4	35·58	138	112
D Blandford (White Cliff St.)	E. Westcott, Esq.	5	1 0	70	..	36·89	132	112
D Blandford (King's Road)	D. Blanchard, Esq.	5	1 0	195	..	35·04	142	108
D Blandford (Bryanston Gardens).	Mr. J. Jaques	5	1 0	185	39·9	42·33	136	121
D Glanville Wootton (Manor Ho.)	H. B. Debenham, Esq.	5	0 9	350	35·2	39·03	146	112
D Holwell (Westrow House)	W. Warry, Esq.	5	1 0	252	34·4	34·35	132	109
D WimborneSt.Giles (St.Giles Ho.)	TheEarlofShaftesbury,K.P.	5	1 6	165	33·4	35·21	143	102
D Gussage St. Michael Manor	Mrs. Good	5	1 4	200	33·3	33·79	141	108
D Iwerne Courtney (Shroton Cot.)	Col. E. W. Harding	5	1 2	200	34·2	35·55	130	108
D Iwerne Minster (Preston House)	Major H. W. Aston	5	1 0	220	33·2	37·29	138	109
D Iwerne Minster Vicarage	Rev. R. A. Bond	5	1 3	234	..	35·17	147	112
D Iwerne Minster House Gardens	Mr. W. Phillips	5	1 0	244	33·9	35·86	134	113
D Sturminster Newton	H. Dawes, Esq.	5	1 6	350	..	33·68	136	111
D Fontmell Magna (Glebe Cottage)	Dr. J. Appleyard	5	1 0	300	29·6	32·76	133	104
D Stalbridge School	W. Lovell, Esq.	5	0 8	268	..	32·93	161	113
Handley (Woodyates Manor).	F. B. Eastwood, Esq.	5	1 0	368	31·9	32·24	..	..
D Cann	A. Macdonell, Esq.	5	1 0	600	..	27·75	133	105
D Shaftesbury	G. P. Barter, Esq.	5	1 0	722	32·5	27·21	128	110
D East Stour (Homestead)	C. E. Davies, Esq.	8	1 0	330	31·6	33·53	138	116
5.—EAST AVON. 12 sq. mi.								
SOUTH DEVONSHIRE. (Area, 1707 sq. mi.)								
1.—PARRETT. 7 sq. mi.								
2.—TAMAR & C. 395 sq. mi.								
D Plymouth (Boveysand Lodge)	Rev. J. F. Case	5	1 6	75	34·1	42·59	147	127
D Plymouth§ (Mt. Batten)*	(+A)The Meteorological Office	8	1 0	82	..	41·81	159	115
D Plymouth (The Hoe)	(+A)H. Victor Prigg, Esq., C.E.	8	1 0	116	36·7	45·59	157	126
D Plymouth (Drake's Reservoir)	F. Howarth, Esq., C.E.	5	1 0	149	37·5	47·43	142	122
Plymouth (Freedom Park)	(+A)H. Victor Prigg, Esq., C.E.	8	1 0	208	39·4	49·77	154	132
D Devonport (Rowdens Res.)	F. Howarth, Esq., C.E.	5	1 0	201	35·1	44·14	162	122
D Plymouth (Hartley Reservoir)	F. Howarth, Esq., C.E.	5	1 0	321	39·9	50·91	157	131
D Bickley (Roborough Reservoir)	F. Howarth, Esq., C.E.	5	1 0	548	46·2	58·97	183	132
D Lee Moor Clay Works	R. Martin, Esq.	8	1 0	900	62·4	83·75	176	154
D Yelverton (Oakfield)	H. Edgcombe, Esq.	5	1 0	535	51·8	67·87	188	141
D Sheepstor (Red Stone)	F. Howarth, Esq., C.E.	5	1 0	760	59·0	73·20	183	150
D Sheepstor (Burrator)	F. Howarth, Esq., C.E.	5	1 0	755	59·1	70·27	183	144
D Sheepstor (Head Weir)	F. Howarth, Esq., C.E.	5	1 0	720	57·0	72·08	182	146
D Dousland Reservoir	F. Howarth, Esq., C.E.	5	1 0	721	51·8	68·69	191	136
M Dartmoor (Deancombe Farm)	F. Howarth, Esq., C.E.	5	1 0	807	..	72·62	..	..
D Dartmoor (Lowery)	F. Howarth, Esq., C.E.	5	1 0	899	..	70·79	182	140
M Dartmoor (Leather Tor Farm)	F. Howarth, Esq., C.E.	5	1 0	910	59·0	64·33	..	..
M Dartmoor (Siwards Cross)	F. Howarth, Esq., C.E.	5	1 0	1074	..	71·69	..	..
D Whitchurch (Grenofen)	H. Chichester, Esq.	5	1 2	325	46·1	60·26	188	148

* Formerly known as Cattewater. § Exposure not orthodox.

DIVISION V.—SOUTH WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
SOUTH DEVONSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—TAMAR & C.—(*con.*).								
D Whitchurch (Langstone)	Col. H. F. Coleridge, C.B.E.	5	1 0	700	51·4	67·76	171	142
D Whitchurch (Holwell)	F. C. Radcliffe, Esq.	5	1 3	450	..	62·23	187	142
D Tavistock	W. J. Monk, Esq.	5	1 0	457	47·6	61·76	178	137
D Horrabridge (Furzetor)	Col. M. C. Collier	8	0 11	550	..	64·52	192	144
D Tavistock (The Library)	The Librarian	8	1 8	282	44·8	54·63	136	128
M Dartmoor (Double Waters)	F. Howarth, Esq., C.E.	5	1 0	1165	64·2	80·75	..	..
M Dartmoor (N. Hessary Tor)	F. Howarth, Esq., C.E.	5	1 0	1398	..	63·75	..	..
D Mary-Tavy (Blackdown)	H. K. G. Rogers, Esq.	5	1 0	846	53·8	70·29	190	152
D Lifton (Kelly House)	Rev. Maitland Kelly	8	2 3	462	43·8	57·99	161	143
N. Brentor (Langstone)	H. C. Gallap, Esq.	5	..	700	..	66·16	..	..
D Coryton Manor	R. L. Newman, Esq.	5	1 2	450	43·5	54·04	168	143
Lew Down (Coombe Trenchard)	H. M. Sperling, Esq.	5	1 0	450	..	54·85	168	140
D Lydford (Naseby)	Col. H. E. Molesworth, C.M.G., D.S.O.	5	1 0	950	..	67·00	180	152
D **Launceston** (Polapit Tamar)	R. C. Coode, Esq.	5	1 0	315	39·3	49·52	167	140
D Ashwater Rectory	Rev. G. D. Melhuish	5	1 0	500	43·0	51·00	150	142
d Holsworthy (Bodmeyric)	W. J. Rogers, Esq.	5	0 11	450	..	49·03	..	145
3.—ERM & C. 217 sq. ml.								
D Salcombe (Blackstone Lodge)	W. J. Shaw, Esq.	5	1 6	280	34·8	45·41	169	137
D Salcombe	The Borough Surveyor	5	1 0	39	..	39·35	130	111
D Salcombe (Fairhaven)	C. Shillitoe, Esq.	5	1 0	150	..	44·47	162	132
D Salcombe (Malborough)	Rev. H. C. B. Lethbridge	5	1 0	360	..	43·16	154	127
d Kingsbridge (Westbury Terr.)	W. N. Patey, Esq.	5	1 6	150	..	44·15	143	123
D Yealmpton (Torr)	Miss M. Wimbush	5	0 11	100	35·5	47·24	182	128
D Ermington (Strode)	Capt. H. Gore Hawker	5	1 0	75	41·4	52·46	170	128
D Ivybridge (Filham House)	H. Alger, Esq.	5	1 0	160	46·0	56·93	156	131
D Wrangaton (Plymouth M. Hos.)	H. Victor Prigg, Esq., C.E.	5	1 0	607	..	66·49	160	143
D South Brent (Beechfield)	Miss Kingwell	5	1 0	500	61·0	74·42	167	135
D South Brent (Badworthy)	Miss D. B. Latham	5	1 2	550	64·4	89·16	176	144
Cornwood (Yealm Head No. 5)	W. H. Thompson, Esq., C.E.	5	1 0	540	..	75·55	(191)	(150)
Cornwood (Yealm Head No. 1)	W. H. Thompson, Esq., C.E.	5	1 0	943	..	84·40	..	..
†Cornwood (Yealm Head No. 2)	W. H. Thompson, Esq., C.E.	5	1 0	1305	..	73·56	..	..
Cornwood (Yealm Head No. 4)	W. H. Thompson, Esq., C.E.	5	1 0	1415	..	77·41	..	..
†Cornwood (Yealm Head No. 3)	W. H. Thompson, Esq., C.E.	5	1 0	1416	..	78·83	..	..
4.—DART. 197 sq. ml.								
D Dartmouth (Ridge Hill)	Dr. H. J. Campbell	5	1 0	120	40·3	52·71	182	123
D Churston Ferrers (Greenway)	Mrs. C. Williams	5	0 9	..	40·8	55·76	148	122
D Lower Washbourne	Messrs. Brotex, Ltd.	8	1 0	200	..	55·55	138	112
D Brixham (Combe Bank)	H. Clayton, Esq.	5	6 6	115	36·7	44·67	173	123
d Waddeton Court	Sir A. L. Goodson, Bart.	5	1 0	175	40·5	51·07	..	..
D Stoke Gabriel (Maisonnette)	Edward Stobart, Esq.	5	1 0	100	42·8	57·04	142	128
D Totnes (Dundridge Gardens)	Mr. C. H. Cole	5	1 0	250	48·3	62·04	148	124
D Paignton Vicarage	Rev. Preb. H. M. Drake	5	1 0	42	35·4	47·21	140	115
D Paignton (Claylands)	G. M. Rosling, Esq.	8	1 2	150	35·7	47·61	158	120
D Totnes (Walrond House)	H. Hurman, Esq.	5	1 2	40	41·8	62·84	147	123
D Totnes (Berry Pomeroy)	Mrs. C. Barran	5	1 6	185	41·3	54·47	149	118
D Totnes (Staverton)	J. A. Devenish, Esq.	5	0 11	50	..	53·62	136	120
D Dean Prior Vicarage	Rev. H. H. Breton, M.A.	8	1 0	331	..	84·15	176	150
D Ipplepen Vicarage	Rev. R. D. Cooke	5	1 0	266	36·8	49·15	143	122
D Holne (Church Park Cottage)	L. W. Frost, Esq.	5	1 6	620	59·8	81·93	171	131
D Ashburton (Hele House)	E. M. Dowson, Esq.	5	1 0	350	49·6	62·99	162	130
D Ashburton (Druid House)	Miss R. M. Windleatt	5	1 0	583	51·8	64·12	165	134
D Dartmoor (Fox Tor)	E. Rowlands, Esq., C.E.	8	0 7	1160	..	75·62	162	149
D Dartmoor (Strane Valley)	E. Rowlands, Esq., C.E.	8	0 7	1180	..	67·95	162	150
D Dartmoor (Swincombe)	E. Rowlands, Esq., C.E.	8	0 7	1120	..	78·23	163	150
D Ashburton (Leusdon Lodge)	Col. S. R. A. Hankey, D.S.O.	5	1 0	800	50·5	66·34	159	136
d Princetown (Huccaby House)	Lt.-Col. H. H. Joll, D.S.O.	5	1 0	900	54·6	64·38	166	143
D Princetown (Wydemeet)	Colin M. E. May, Esq.	5	1 0	900	58·2	75·27	186	157
D Princetown (H.M. Prison). (+A)	The Governor	5	1 0	1359	81·9	100·22	199	164
w Dartmoor (Cowsic Valley)	F. Howarth, Esq. C.E.	8	1 6	1352	..	81·50	..	..

† Gauge over-exposed on moor.

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SOUTH DEVONSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—DART—(*con.*).								
‡M Dartmoor (Black Dunghill) No. 5	F. Howarth, Esq., C.E. ..	8	1 0	1590	..	54·45	..	..
‡M Dartmoor (Beardown Tor) No. 3	F. Howarth, Esq., C.E. ..	8	1 0	1550	..	57·56	..	..
‡M Dartmoor (White Tor) No. 1	.F. Howarth, Esq., C.E. ..	8	1 0	1640	..	52·05	..	..
D Postbridge (Archerton)	.....Miss E. M. Bennett.....	5	1 0	1320	..	88·07	179	158
‡M Dartmoor (Devil's Tor) No. 2	.F. Howarth, Esq., C.E. ..	8	1 0	1785	..	52·25	..	..
‡M Dartmoor (Cowsic Head) No. 4	.F. Howarth, Esq., C.E. ..	8	1 0	1580	..	66·40	..	..
d Postbridge (Warren House Inn)	S. C. Chapman, Esq., C.E..	5	1 0	1400	..	(81·62)	161	144
5.—TEIGN. 209 sq. mi.								
D Torquay (Cary Green)	.....The Town Clerk	5	1 0	12	33·0	34·06	141	107
D Torquay (Middle Lincombe Rd.)	Miss L. M. Brown	5	1 0	250	30·9	38·14	148	115
D Torquay (Abbey Road)	.....Henry Brown, Esq.	5	1 0	125	34·3	45·11	143	111
D Bickington (Higher Goodstone)	Lt.-Comdr. W.A.A. Bolitho, R.N.	6	1 0	400	..	50·77	156	132
Highweek	.....H. B. Mapleton, Esq.* ...	..	..	220	..	43·95	..	..
D Newton Abbot (Seale Hayne Coll.)	The Principal.....	5	1 0	357	34·7	43·28	152	118
Teignmouth (Bonnicliff)	.....The Misses Horner	5	1 0	260	32·8	41·37	149	..
Teignmouth (Woodlands)	....S. B. Harris, Esq.	8	1 2	98	31·5	38·58	134	115
D Teignmouth (Fontigary)†	.....John F. Caley, Esq.....	5	1 0	250	30·1	37·31	147	115
D Teignmouth (Landscore Road)	.Dr. E. E. Moore	5	1 0	143	31·8	40·49	161	118
D Teignmouth (Den Gardens)	....G. Rossiter, Esq.	8	1 0	20	31·8	40·76	157	115
D Teignmouth (Hazledown Res.)	.G. Rossiter, Esq.	8	1 0	425	32·4	44·17	153	117
D Teignmouth (Shaldon Res.)	....G. Rossiter, Esq.....	5	1 0	213	34·9	45·94	140	114
D Teignmouth (Landscore Res.)	..G. Rossiter, Esq.....	8	1 0	133	33·2	41·28	150	113
D Teignmouth (The Shrubbery)	..E. A. Norton, Esq.....	8	1 0	275	32·9	38·48	166	126
D Ilsington	.....Miss E. Willcocks	5	1 0	650	47·8	58·80	169	126
D Dawlish (The Lawn)	.....S. F. C. Churchward, Esq...	5	1 0	18	32·3	38·48	134	114
D Dawlish (Luscombe Castle)	....Peter Hoare, Esq.	8	1 2	175	35·9	49·88	173	126
D Bovey Tracey (Hedgebarton)	..S. C. Chapman, Esq., C.E.	5	1 6	1137	59·2	71·35	174	139
D Bovey Tracey (Edymead)	.....Rev. W. V. Vickers	5	2 0	200	..	49·23	140	123
D Chudleigh (Rock House)	.....G. F. Wright, Esq.....	5	1 2	190	..	41·90	145	115
w Ashcombe (Thorns Reservoir)	..S. F. C. Churchward, Esq...	5	1 6	550	36·4	46·59	..	..
D Hennock (Hazlewood)	.....R. P. Kitson, Esq.	5	1 0	650	..	48·63	150	123
D Moretonhampstead (Bullaton)	..S. C. Chapman, Esq., C.E.	8	1 0	928	42·2	54·21	177	126
D Moretonhampstead (Mardon)	..S. C. Chapman, Esq., C.E.	8	1 0	837	40·6	44·87	176	128
North Bovey (Manor House)	...Mr. J. T. Laurence	5	1 0	700	49·0	59·44	171	140
M Chagford (Toms Hill)	.....S. C. Chapman, Esq., C.E.	5	1 0	1500	..	85·89	..	..
M Chagford (Hempson)	.....S. C. Chapman, Esq., C.E.	5	1 0	1350	..	83·51	..	..
D Christow (Kennick) No. 1	.....S. C. Chapman, Esq., C.E.	8	1 0	836	41·6	53·25	174	129
D Christow (Kennick) No. 2	.....S. C. Chapman, Esq., C.E.	8	1 0	860	..	52·55	173	126
D Chagford (Fernworthy)	.....S. C. Chapman, Esq., C.E.	5	1 0	1150	..	80·95	174	148
D Chagford (Metherall)	.....S. C. Chapman, Esq., C.E.	8	1 0	..	..	79.84	173	137
M Chagford (Thornworthy Down)	S. C. Chapman, Esq., C.E.	5	1 0	1250	..	76·97	..	..
D Christow (Smithacott)	.....S. C. Chapman, Esq., C.E.	8	1 0	861	41·4	44·74	173	127
D Moretonhampstead (Stinhall)	..S. C. Chapman, Esq., C.E.	5	1 6	844	48·9	65·32	158	141
M Moretonhampstead (Blckngstne)	S. C. Chapman, Esq., C.E.	5	1 0	1158	42·5	45·57	..	..
D Christow (Laployd)	.....S. C. Chapman, Esq., C.E.	5	1 6	1041	41·6	54·52	172	127
D Chagford (Thornworthy)	.....Miss W. H. Varwell	5	1 0	1150	59·6	77·72	195	149
d Chagford (Dartmoor Sanatorium)	T. J. Smith, Esq.....	5	1 4	750	50·3	61·06	(166)	(132)
D Chagford (Huish)	.....Col. P. Hart Dyke, D.S.O..	5	1 0	590	..	58·00	177	134
6.—EXE. 445 sq. mi.								
D Exmouth (Douglas Avenue)	..Mrs. S. G. Gillum	5	0 10	80	28·7	33·71	144	106
D Exmouth (Nidderdale)	.....Mrs. Herbert Stewart	5	1 0	50	28·4	32·81	167	110
D Exmouth (Waterworks Road)	.S. Hutton, Esq., C.E.	5	1 0	195	28·6	34·90	140	108
D Exmouth (Filters, Salterton Rd.)	S. Hutton, Esq., C.E.	8	8 6	195	31·5	36·64	147	113
D Exmouth (Filters, Capel Lane)	.S. Hutton, Esq., C.E.	5	8 0	240	30·3	35·03	149	115
D Starcross	.....H. Falkner, Esq.	5	1 0	12	32·1	38·71	155	113
D Lympstone (Manor House)	....Gilbert Shelden, Esq.	5	0 11	54	30·8	38·36	149	115
d Lympstone (Mussel Purifn. Stn.)	The Director	8	1 9	4	29·6	31·71	..	..

* *Per* Cornwall Rainfall Association. † Formerly called Coombe Vale. ‡ Gauge over-exposed on moor.

DIVISION V.—SOUTH WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SOUTH DEVONSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
6.—EXE—(*con.*).								
D Woodbury (Oakhayes)	E. S. Chattock, Esq.	5	1 0	200	..	36·58	162	124
D Woodbury (Little Orchard)	Miss J. Waters	5	1 0	200	..	39·00	145	115
M Topsham (Ebford)	Lt.-Col. B. W. Bogle	5	1 0	45	30·5	(35·36)	..	..
d Topsham (Altamira)	Mrs. Wimbush	5	0 9	120	29·3	33·58	..	107
D Exminster (Trood House)	Lt.-Col. T. L. Ormiston	5	1 0	75	..	40·46	154	112
d Exeter (Hatfield, Longdown)	C. Holman, Esq.	5	0 10	450	33·8	42·13	158	114
d Aylesbeare (Rosamondford)	A. T. Loram, Esq.	5	0 9	220	31·4	38·51	..	106
D Exeter (Devon & Exeter Inst.)	J. E. Coombes, Esq.	5	13 7	155	30·5	37·02	162	120
D Exeter (The Close)	The Ven. Arch. T. N. Leeke	5	1 2	120	..	37·88	165	113
Exeter (The Close)	Rev. Canon D. McLaren	5	0 9	100	..	37·12	154	121
D Exeter (Hele's School)	W. P. Baron, Esq.	8	6 0	133	30·7	37·12	145	114
D Tedburn St. Mary Rectory	Rev. H. Rusbridger	5	0 10	400	32·7	36·57	184	130
d Spreyton (Fuidge Manor)	Rev. E. V. Freeman	5	1 0	710	35·7	36·64	..	112
D Rockbeare Manor	Lt.-Col. H. Spencer Follett	5	0 10	198	30·9	33·52	138	108
D Poltimore Rectory	Rev. Dr. Hopkinson	5	1 0	80	..	36·41	175	118
d Brampford Speke	S. Stevens, Esq.	5	1 0	170	..	31·65	131	107
D Crediton (Ship Hotel)	R. Stanley Clarke, Esq.	8	1 2	200	33·1	34·48	170	131
d Silverton (Killerton)	Rt. Hon. Sir F. Dyke Acland, Bt.	5	1 0	159	30·6	33·56	..	..
D Silverton	G. B. Savery, Esq.	5	1 0	260	..	36·48	167	123
D Crediton (Okefield)	Seymour F. Pope, Esq.	5	0 10	325	32·2	33·58	188	127
D Copplestone (Coplestone House)	Miss M. Pope	5	0 11	315	34·1	37·51	182	133
D Bradninch (Dunmore House)	Miss H. R. Hepburn	5	1 0	300	33·8	38·43	162	127
D Cullompton	Murray T. Foster, Esq.	5	1 0	202	35·3	40·32	176	128
D Kentisbeare	A. E. Painter, Esq.	5	1 0	304	..	37·09	150	109
D Tiverton (St. Aubyn's Park)	F. C. Fox-Strangways, Esq.	5	1 0	394	39·4	44·08	184	126
D Tiverton (Hartnolls)	Maj.-Gen. F. A. Bowles, C.B.	5	1 4	226	37·9	43·06	162	131
D Tiverton (Alstree, Halburton)	Miss M. G. Izat	5	0 9	240	40·1	43·97	181	121
D Tiverton (Blundell's School)	E. G. Peirce, Esq.	5	1 6	270	..	42·66	167	120
D Tiverton (Lythecourt)	A. L. Sadler, Esq.	5	1 2	220	40·2	43·56	146	125
D Hemyock (Windlehurst)	Sir Arthur Tedder, C.B.	5	1 0	750	37·4	41·34	170	136
D Bampton (Stuckeridge)	Brig.-Gen. J.C.Livingstone-Learmonth, C.M.G.	5	1 6	650	..	44·67	146	120
d Bampton (Castle Grove)	Major B. M. Read	5	1 4	272	..	47·36	158	123
D Morebath Manor	C. H. W. Malet, Esq.	5	1 0	600	..	48·06	156	134
7.—AXE & C. 237 sq. mi.								
D Budleigh Salterton (Tordown)	Col. F. R. Loveband	7	0 8	200	..	35·74	143	118
Budleigh Salterton (West Ways)	J. Hartree, Esq.	5	1 6	140	..	35·12	..	..
D Budleigh Salterton (Bragwick)	E. Fisher, Esq.	5	1 0	40	..	31·60	134	117
D Budleigh Salterton (Tidwell Ho.)	Mrs. J. H. Foster	5	1 0	100	..	33·62	133	114
D Budleigh Salterton (Knowle Ho.)	Mrs. Pepys	5	2 4	230	..	36·93	129	117
Budleigh Salterton (Squabmoor)	S. Hutton, Esq., C.E.	5	1 0	267	31·9	38·14	..	..
East Budleigh (Bicton Common)	S. Hutton, Esq., C.E.	5	1 0	300	32·2	36·10	..	..
D East Budleigh (Bicton Gardens)	Mr. E. H. High	5	1 0	90	31·4	35·86	149	124
d Salcombe Regis (Steephill)	Burleigh D.Kilburn, Esq.	5	1 0	150	..	34·50	152	118
D Sidmouth (U.D.C.)	L. M. Blanchard, Esq.	5	1 0	25	..	32·85	142	114
d Sidmouth (Winslade Cottage)	Miss G. Collins, M.B.E.	5	1 0	145	..	36·22	(141)	(115)
D Sidmouth (Sidmount)	Miss C. M. Radford	5	1 0	149	32·4	38·32	148	122
D Sidmouth (Sidmount)	Miss C. M. Radford	5	1 0	186	32·5	36·39	147	116
D Seaton (The Copse)	H. J. Roberts, Esq.	5	1 0	220	34·8	34·32	167	115
D Seaton (Withylake)	T. F. Tracy, Esq.	5	0 11	120	..	35·28	141	114
D Sidmouth (Harpford)	P. M. Miller, Esq.	5	1 6	195	..	37·93	136	110
D Lyme Regis (Pinhay)	Mr. W. F. Shillabeer	5	1 11	465	34·9	37·14	152	112
D Lyme Regis (Ware)	Capt. R. A. D. Fullerton	5	0 10	318	33·9	35·21	154	112
Ottery St. Mary (Easthayes)	T. A. B. Pares, Esq.	8	1 3	500	..	36·43?	..	..
D Ottery St. Mary (West Hill)	B. Stansbury, Esq.	5	1 6	340	34·2	39·71	164	120
D Ottery St. Mary (Broad Street)	H. D. Badcock, Esq.	5	4 0	170	36·3	40·69	167	114
D Kilmington (Haddon Corner)	A. Hitchcock, Esq.	5	1 0	410	37·8	41·54	163	119
M Kilmington (Summerleaze)	A. Hitchcock, Esq.	5	1 0	82	36·0	38·89	..	..
D Axminster (Lea Combe House)	Major A. C. F. Luttrell	5	1 0	170	38·4	38·92	135	112
D Honiton (Beech Grove)	Major A. T. Baker	5	0 10	340	38·5	42·94	153	120

DIVISION V.—SOUTH WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SOUTH DEVONSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
7.—AXE—(*con.*)								
D Axminster (Coaxdon Hall)	Dr. Cecil Woodhouse	5	1 0	165	37·5	37·24	148	110
D Membury (Yarty House)	Major W. H. Wilkin	5	1 0	245	..	35·24	143	108
D Membury (Green Down)	James Lee, Esq.	5	1 0	500	38·4	43·70	146	110
D Stockland (Reading Room)	Mr. James Clarke	5	1 0	350	40·5	43·09	124	104
NORTH DEVONSHIRE. (Area, 898 sq. mi.)								
1.—NORTH COAST STREAMS. 77 sq. mi.								
D Woolacombe (Hotel Grounds)	Miss Chichester	5	1 0	59	..	29·36	154	122
D Ilfracombe (Reservoir)	F. B. Goodman, Esq., C.E.	5	1 0	395	46·2	54·98	182	151
d Ilfracombe (Langleigh)	H. B. Holland, Esq.	5	1 0	127	41·8	47·54	162	139
D Ilfracombe (Capstone Hill)	*F. B. Goodman, Esq., C.E.	5	1 0	25	36·0	44·77	159	136
2.—TAW. 442 sq. mi.								
D Okehampton (South Zeal)	Capt. S. T. Dean-Pitt	5	1 0	750	45·5	51·76	156	130
Spreyton (Lynderies)	Lt.-Col. J. Simpson	5	1 0	655	36·9	40·29	..	..
D Witheridge	Rev. J. A. S. Castlehow	5	1 0	600	39·5	42·12	187	132
D High Bickington Rectory	Rev. C. V. Wansbrough	5	0 8	587	..	35·62	176	141
d East Anstey Rectory	Miss P. Payne	5	0 8	650	..	49·49	..	..
D East Anstey (Rhyll Manor)	Mrs. E. L. Hancock	5	1 6	850	..	44·79?	154	139
D Filleigh (Castle Hill Gardens)	The Countess Fortescue	12	4 0	317	43·1	48·82	168	146
Tawstock Court	Sir Basil Peto, Bart.	8	1 0	150	..	40·63	..	..
D Molland (Green Cot)	S. J. Case, Esq.	5	1 0	674	50·5	55·73	182	153
D Barnstaple (N. Dev. Athenæum)	Miss E. Young	8	1 0	25	36·6	38·24	195	144
D Barnstaple (Hele Manor Park)	M. B. B. Heath, Esq.	6	1 0	130	..	39·81	178	139
D Barnstaple (Fort Hill)	Miss E. F. Sterry	5	4 0	200	38·3	40·82	196	147
D High Bray Rectory	Rev. C. F. Ford	5	0 8	700	..	59·83	175	155
D Barnstaple (Westaway)	Major O. L. Trechmann	5	1 0	140	39·1	40·93	167	139
Goodleigh (Willesleigh House)	Lt.-Col. Montague H. Hall	5	1 0	375	40·0	41·23	154	143
D Goodleigh (Gunn Cottage)	Major H. Sandford Claye	5	1 0	720	43·4	44·70	183	151
D Braunton	A. J. Besley, Esq.	5	1 0	145	33·5	36·45	160	134
D Arlington Court	Miss Chichester	5	1 0	613	53·8	55·66	175	164
D Challacombe	F. B. Goodman, Esq., C.E.	5	1 0	815	62·2	68·40	183	157
D Georgeham (Spreacombe Manor)	A. Leigh Barker, Esq.	5	0 9	340	38·1	43·39	177	146
3.—TORRIDGE. 342 sq. mi.								
D Okehampton (Uplands)	E. P. Burd, Esq.	5	1 0	700	51·4	59·85	179	149
D Okehampton Grammar School	W. Hunter, Esq.	5	1 0	500	..	51·26	145	115
d Monkokehampton	Rev. R. Y. Holmes	5	0 6	245	..	39·50	149	124
Dolton (Hilliers)	A. Smythies, Esq.	5	1 3	280	37·9	40·75	169	141
D Torrington (Enfield)	G. M. Doe, Esq.	5	1 0	337	39·3	40·89	175	138
D Torrington (Stevenstone House)	Lt.-Col. B. C. James	5	1 0	395	41·5	41·90	145	129
D Parkham (Melbury Moor)	F. Harding, Esq.	5	1 0	630	50·2	54·93	180	146
D Parkham (Melbury Reservoir)	F. Harding, Esq.	5	1 0	517	52·8	63·47	182	160
D Buckland Brewer (The Cottage)	Miss B. G. Rogers	5	0 11	469	45·0	51·16	187	151
D Littleham (Orleigh Court)	W. H. Rogers, Esq.	5	1 0	260	48·0	46·19	172	145
D Landcross (South Close)	C. R. C. Hibbert, Esq.	5	1 0	100	35·6	45·19	175	134
D Bideford (Jennett's Res.)	F. J. Harris, Esq., C.E.	5	1 0	62	..	42·20	168	157
D Bideford (Webbery)	Mrs. C. E. Boyd	5	1 0	355	37·7	43·23	181	142
D Bideford (Edgehill College)	Miss A. G. Cross	5	1 0	100	..	43·23	172	136
D Westleigh House	Rev. H. G. deC. Stevens Guille	5	1 0	187	35·6	38·84	177	138
D Northam (Cluden)	Miss M. L. Varwell	5	0 9	215	35·9	41·08	180	132
D Westward Ho! (Royal Golf Club)	Major A. Newton-King	5	1 6	10	32·3	39·66	154	131
4.—WEST COAST STREAMS. 32 sq. mi.								
D Hartland (Fosfelle)	R. P. Chope, Esq.	5	1 0	480	..	50·00	184	147
D Clovelly Court	Mr. H. Tuke	5	0 11	360	51·2	50·37	155	139
5.—EXE. 5 sq. mi.								

* At Ropery Meadow previous to April, 1922.

DIVISION V.—SOUTH WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
		in.	*ft. in.*	*ft.*	*in.*	*in.*		
CORNWALL. (Area, 1363 sq. mi.)								
1.—CAMEL & N.W. COAST STREAMS. 458 sq. mi.								
Crowan (Boswyn Res.)	Camborne Water Co.*	..	..	511	43·1	59·06	169	149
D Lelant	Mrs. Tyringham	5	1 3	50	42·0	54·04	174	139
D Hayle (Gwythian Road)	Caldwell Harpur, Esq.	5	0 10	98	39·2	48·12	169	139
D St. Ives (Halsetown Vicarage)	Rev. T. C. F. Barfett	5	1 0	328	..	55·33	190	150
D St. Ives (Bussow Moor)	T. S. Rogers, Esq.	5	1 1	400	..	64·28	175	148
D Camborne	Miss I. Osborne	5	2 6	402	43·4	54·74	154	137
D Camborne (Uplands)	H. G. Rix, Esq.	5	1 0	279	..	48·70	172	142
St. Ives (Liscoruah)	Col. J. M. Findlay, D.S.O.*	..	..	300	..	53·88	164	154
D Redruth (Trewirgie)	A. P. Jenkin, Esq.	5	1 0	399	45·3	57·16	189	140
M Redruth (Green Lane Nurseries)	F. Sanders, Esq.	5	1 0	270	41·2	52·15	..	..
D St. Agnes (Church Town)	Dr. W. C. Whitworth	5	5 0	318	36·5	37·05	176	136
Newquay (Reservoir)	Dr. C. C. Vigurs	5	1 0	210	33·1	40·72	..	..
D Newquay (Mount Wise) No. 1.	Dr. C. C. Vigurs	5	1 0	190	33·2	38·97	168	135
D Bodmin (Polgwin)	H. D. Foster, Esq.	5	1 0	400	48·8	56·11	176	159
D Bodmin (Castle Hill House)	Mrs. Leslie	5	1 0	484	49·7	52·80	210	148
D Little Petherick (St. Petroc Minor)	Miss A. T. Skilbeck	5	1 2	150	..	39·78	169	139
Wadebridge (Bryn)	Miss K. D. Phillips	5	1 6	50	39·7	46·44	..	..
D Wadebridge (Trewornan)	Brig.-Gen. L. J. Hext, C.M.G.	5	1 0	30	37·8	40·83	182	141
D St. Kew (Skisdon)	Mrs. Braddon	5	1 0	100	42·1	50·50	192	152
St. Minver (Trebetherick)	A. T. Roseveare, Esq.	8	1 0	70	33·8	36·44	..	..
D Camelford (Stannon Clay Wks.)	English China Clays, Ltd.*	8	1 5	800	57·2	65·75	177	154
D Bude (School House)	Karl Durston, Esq.	5	1 0	50	33·4	38·42	167	132
Bude (Trelana)	G. A. C. Thynne, Esq.	..	..	200	..	38·06	..	..
D Morwenstow (Tonacombe Man.)	Mrs. Waddon Martyn	5	1 0	450	38·2	39·78	161	146
2.—FOWEY & S.E. COAST STREAMS. 620 sq. mi.								
‡D Lizard	J. J. Emmott, Esq.*	5	1 0	244	33·3	34·52	182	131
Lizard (Tregullas House)	A. P. Jenkin, Esq.	..	..	244	..	40·99	..	..
D Ruan Minor	Miss H. F. Shepherd	5	1 0	210	35·9	42·87	172	135
Mullion (Council School)	E. J. Perry, Esq.	5	1 1	208	..	46·83	170	134
D Mullion	H. H. Penrose, Esq.	5	0 10	178	35·2	44·22	159	128
D Porthcurno	Eastern Telegraph Co.	5	1 0	150	36·8	43·76	198	133
St. Keverne (Lanarth)	P. D. Williams, Esq.	5	1 3	310	43·8	49·90	185	138
D Bosahan (St. Martin-in-Meneage)	Hon. Mrs. Colborne Vivian	..	..	240	..	49·99	166	140
Helston (Tenderah)	J. W. Tyacke, Esq.	5	1 4	220	..	51·51	185	149
Sithney (Council School)	R. Trend, Esq.	5	0 10	296	..	50·60	123	102
Constantine (Pons-a-Verran)	A. Mayne, Esq.*	8	1 0	60	39·5	44·36	175	135
D Penzance (Trewidden)	Mr. J. H. Murley	9	1 0	275	42·9	47·58	174	149
D St. Michael's Mount	Lord St. Levan	..	..	50	..	45·45	143	133
Penzance (Lower Larrigan)	E. T. Gregory, Esq.	5	1 0	70	41·0	48·11	190	..
D Penzance (Morrab Gardens)	C. H. Benn, Esq.	5	1 0	55	40·9	49·92	186	144
D Penzance (Trengwainton House)	Lt.-Col. E. H. W. Bolitho.	8	1 2	400	46·2	53·06	182	153
D Gulval (Co. Council Plot)	Mr. A. E. Gunningham	5	1 0	21	41·5	50·05	184	145
§D Falmouth (Pendennis Castle)	Meteorological Office	8	0 9	200	..	41·76	156	127
D Falmouth Observatory	(+A) Roy. Cornwall Poly. Soc.	5	1 0	167	43·6	50·66	164	132
D Falmouth (Trefusis)	Lt.-Col. The Hon. H. W. F. Trefusis.	5	1 3	200	40·5	43·32	166	131
d Wendron (Halwin School)	F. P. Jenkin, Esq.	5	2 0	540	47·2	55·79	138	128
D Penryn (Ashfield)	J. G. Stephens, Esq.	5	1 0	95	41·6	51·27	179	135
Penryn (Roskrow)	Mrs. E. Stephen*	..	..	550	..	59·17	..	..
M Devoran	Lord Clifden*	5	1 0	120	41·0	50·32	..	..
D Gwennap (Trevince)	C. H. Beauchamp, Esq.	12	1 0	240	44·4	55·66	179	141
D St. Day (Council School)	R. R. Blewett, Esq.	5	0 9	390	49·1	57·20	189	141
D Truro (Killiow)	Miss E. F. A. Daubuz	5	1 0	250	42·0	48·91	165	133
D Truro (Tregolls)	Miss C. L. Rashleigh	5	1 0	65	41·8	52·13	187	138
D Truro W.W. (Lower Tregurrow)	W. J. Lean, Esq.	5	1 0	71	43·2	50·42	159	142
D Mevagissey	C. Metcalfe, Esq.	5	1 0	100	42·5	51·45	175	137
D Polperro	F. H. Perrycoste, Esq.	5	0 11	100	39·2	46·28	181	135
D Fowey	C. I. Wellington Esq.	5	1 0	51	34·7	41·41	146	129
D St. Austell (Charlestown Old Vic.)	C. A. Battiscombe, Esq.	5	4 0	204	42·7	52·23	164	138

* *Per* Cornwall Rainfall Association. ‡ Probably over-exposed. § Exposure not orthodox.

DIVISION V.—SOUTH-WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
CORNWALL—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—FOWEY & S.E.—(*con.*).								
D St. Austell (Trevarna)	W. M. Coode, Esq.	5	1 0	300	45·8	55·02	178	147
D Looe (Morval)	Capt. A. H. Tremayne, R.N.	5	1 0	150	46·9	56·98	166	140
D Lostwithiel (The Terrace)	R. Pease, Esq.	5	1 0	110	50·0	59·15	183	143
D Menheniot (Coldrenick)	Rev. F. E. Trelawny	5	1 0	301	48·4	58·07	152	136
D Liskeard (St. Pinnock Rectory)	Rev. S. H. Farwell Roe	5	1 0	400	57·4	67·70	210	164
D Liskeard (Penmilder)	Miss D. P. Foster	6	1 0	350	42·6	56·81	158	130
St. Clear (Tregarric)	Col. J. D. A. Roberts	5	1 6	800	52·1	56·71	..	..
D Bolventor Vicarage	Rev. A. S. Rashleigh	5	1 0	845	71·1	79·91	203	166
3.—TAMAR & C. 279 sq. mi.								
D Devonport (Empacombe)	Miss M. C. Algate	5	2 0	15	36·8	50·39	159	131
D Devonport (Cremyll)	S. B. Wilcox, Esq.	5	1 4	25	36·9	45·76	178	131
D Torpoint (Trethill House)	Col. J. D. A. Roberts	5	1 6	200	34·3	42·85	155	116
Torpoint (Wilcove)	G. P. Jenkin, Esq.*	..	..	40	..	50·88	173	132
D St. Mellion (Pentillie Castle)†	W. T. Johnson, Esq.	5	1 0	150	50·7	59·69	165	121
D Albaston (Nanaimo House)	N. R. Rosekilly, Esq., J.P.	5	1 0	500	41·8	49·88	152	126
D Launceston (Landue)	Miss S. E. Tregoning	5	0 11	225	44·2	49·17	184	138
D Launceston (Hexworthy)	R. B. Rogers, Esq.	5	1 0	270	43·8	53·05	184	130
D Launceston (Pendruccombe)	Miss L. C. Seccombe	5	1 0	469	42·2	51·03	167	132
Egloskerry (Tregeare)	E. G. B. Lethbridge, Esq.	5	1 6	613	47·3	51·03	..	..
D North Tamerton (Davies)	W. S. Bray, Esq.	5	1 0	450	36·8	44·33	175	143
4.—INSULAR.—Isles of Scilly. 6 sq. mi.								
D St. Mary's	The Meteorological Office	8	1 0	165	31·9	38·33	183	145
D Tresco Abbey (*Old G*)	Maj. A. A. Dorrien Smith, D.S.O.	8	2 4	40	32·6	39·29	180	145
D Tesco Abbey (*New G*)	Maj. A. A. Dorrien Smith, D.S.O.	5	1 0	40	..	40·50	189	146
SOMERSETSHIRE. (Area, 1630 sq. mi.)								
1.—LOWER AVON. 300 sq. mi.								
D Wanstrow (The Manor Cottage)	P. E. B. Warburton, Esq.	5	1 0	465	37·7	37·85	144	117
D Shepton Mallet (Pondsmead)	R. A. Hobhouse, Esq.	8	1 0	710	44·9	44·22	165	137
D Frome W. W. (Egford)	L. Slaughter, Esq.	8	2 0	270	35·8	37·04	162	117
D Frome (Orchardcroft)	H. G. Chislett, Esq.	5	1 0	265	31·2	34·47	155	110
D Frome (Selwood School)	Miss A. K. Coombs	5	1 7	320	33·9	32·69	158	112
D Mells (Selwood)	Miss E. G. Horner	5	1 0	344	37·2	35·44	169	118
D Binegar (Gurneyslade)	Rev. G. B. Hicks	5	1 0	588	43·3	43·67	161	129
D Stratton-on-Fosse (Downside Ab)	Rev. G. B. Hicks	8	1 0	600	41·5	41·15	161	124
D Orchardleigh Park	Major A. C. Duckworth	8	0 11	320	32·8	33·95	137	108
D Chilcompton (The Woodlands)	C. H. M. Thring, Esq.	5	0 10	450	..	42·99	166	126
D Chewton Mendip (The Priory)	The Earl Waldegrave	5	1 0	550	45·0	44·15	164	127
d Midsomer Norton (Island Ho.)	Dr. G. S. Pollard	5	1 6	300	36·5	(37·60)	..	..
D Midsomer Norton (Dymboro')	Dr. A. Bulleid	5	1 0	350	35·8	38·15	141	113
D Midsomer Norton (C. E. School)	J. Poyner, Esq.	5	0 3	310	..	(36·93)	143	113
D Radstock (Frome Hill)	C. H. Perry, Esq.	8	2 6	330	34·7	36·97	143	114
D Litton (Sherborne Res.)	J. A. McPherson, Esq., C.E.	5	1 0	340	40·0	44·78	155	125
w Harptree Hill	J. A. McPherson, Esq., C.E.	8	1 0	784	..	46·19	..	..
D Tellisford (Crabb Hall)	Dr. W. C. Everley Taylor	5	0 9	182	..	29·10	130	105
D Hinton Blewitt Manor	Maurice Church, Esq.	5	1 3	500	39·6	42·20	189	126
d High Littleton Vicarage	Rev. T. H. Fitzpatrick	5	0 11	446	34·7	34·77	158	114
D Clutton (Council School)	W. J. Pullen, Esq.	5	1 0	420	..	31·02	177	118
D Pensford (Sutton Court)	Lord Strachie	8	1 0	280	37·7	39·09	168	113
d Monkton Combe (Crossways)	M. J. Lipscomb, Esq.	5	1 0	210	33·2	34·08	..	..
D Pensford (Hunstrete House)	H. Leyborne Popham, Esq.	5	0 9	400	33·7	34·14	165	122
D Chew Magna	J. A. McPherson, Esq., C.E.	5	1 0	180	36·3	38·69	148	118
D Pensford (Publow School Ho.)	A. Hayes, Esq.	5	1 0	230	33·2	35·52	152	117

* *Per* Cornwall Rainfall Association. † Previously known as Saltash (Pentillie Castle).

DIVISION V.—SOUTH WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SOMERSETSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—LOWER AVON—(*con.*).								
D Bath (Henrietta Park)	Bath Corporation	5	1 0	67	30·3	29·33	153	115
D Bath (Monkton Combe)	W. G. Lock, Esq.	5	1 0	450	30·3	31·40	177	125
D Bath (Combe Lodge)	Major T. H. Clark	5	1 0	520	31·4	33·56	146	114
D Bath (Statutory Hospital)	Bath Corporation	5	1 0	520	32·8	32·39	132	116
D Bath (Claverton Lodge)	G. Lipscomb, Esq.	5	1 3	375	29·1	28·89	134	115
D Bath (Lansdown Place)	Lady Stothert	5	1 2	410	31·5	32·78	163	129
D Bath (Charlcombe)	Philip Porteous, Esq., C.E.	5	1 6	325	31·4	30·36	140	111
D Batheaston Reservoir	Philip Porteous, Esq., C.E.	5	1 6	248	31·1	34·88	162	119
D Batheaston (Sandybank Inn)	F. Lee, Esq.	5	1 0	150	..	32·03	143	121
d Keynsham (Chewton Road)	A. E. Stephens, Esq.	8	1 0	133	29·6	31·33	..	100
D Bath (Brockham End)	Mr. H. A. Holland	5	2 0	730	29·9	29·42	156	123
D Barrow Gurney Reservoir	J. A. McPherson, Esq., C.E.	5	1 0	300	36·2	41·40	152	113
D Long Ashton (Research Station)	W. H. Neild, Esq.	8	0 8	162	34·1	39·93	173	117
D Walton (Canok Lodge)	Major F. J. Winter	5	1 0	152	32·2	36·27	139	120
D Failand House	Miss Agnes Fry	5	1 0	390	34·6	41·09	169	124
D Portishead (Bristol Rd.)	Portishead Dist. Water Co.	5	1 6	24	34·9	35·07	145	115
D Portishead (St. Mary's Road)	Paul Sinnock, Esq.	5	0 10	67	..	35·22	146	112
2.—YEO, AXE & BRUE. 405 sq. mi.								
D Alford Rectory	Rev. A. B. Burney†	5	..	100	30·8	29·58	152	128
D Somerton (Butleigh Court)	R. Neville Grenville, Esq.	8	1 2	95	30·5	30·05	148	117
D Bruton (Redlynch Park)	W. F. Pepper, Esq.	5	1 0	390	32·9	32·34	159	123
d Bruton (Wyke Champflower)	F. K. Makins, Esq.	5	1 0	350	..	32·54	(158)	(115)
D Ditcheat Rectory	Rev. H. H. Tripp, M.A.	5	1 0	230	31·5	32·09	157	121
D Street (Overleigh House)	J. B. Clark, Esq.	5	0 10	100	28·5	28·57	153	116
d Street (Wraxhill Corner)	A. H. Clothier, Esq.	5	1 10	70	..	31·78	..	..
D Street (Millfield)	Miss Alice Clark	8	0 5	100	29·5	29·27	147	109
D Glastonbury (St. Michael's)	Ven. Archdeacon W. Farrer	5	1 0	220	28·8	30·08	164	119
D Edington	Major A. C. F. Luttrell	5	1 6	90	31·2	34·39	150	125
D Chilton Polden (West House)	Mr. E. Chick	5	1 0	100	28·5	29·90	151	110
D Cossington Manor	J. C. Macro Wilson, Esq.	5	1 0	110	..	30·35	152	107
D Shepton Mallet (Pilton)	Miss E. M. Allen	5	1 6	354	34·6	33·62	169	124
D Shepton Mallet (Cannards Grave)	H. W. Heberden, Esq.	5	1 6	550	..	37·14	162	124
D Shepton Mallet (Charlton)	C. E. Burnell, Esq., J.P.	5	1 0	481	38·8	38·82	161	130
D Shepton Mallet (Field House)	F. H. Berryman, Esq.	5	1 0	500	38·6	37·29	161	119
D Shepton Mallet (Sewage Farm)	The Surveyor, U.D.C.	5	1 0	330	38·7	35·74	161	129
D Doulting Vicarage	Rev. H. S. Darbyshire	5	1 0	693	39·8	37·38	161	129
d Wells (Mental Hospital)	Medical Superintendent	5	1 2	300	..	34·22	..	..
D Wookey Vicarage	Rev. F. P. Synge	5	2 6	50	33·5	36·38	159	119
D Blackford (Council School)	E. H. Phillips, Esq.	5	1 0	50	..	33·67	148	111
d Wells (Wookey Hole Paper Mlls)	W. S. Hodgkinson & Co., Ld.	5	1 0	200	35·1	37·19	..	..
D Wookey Hole (Wookey Ho.)	E. T. Wilson, Esq.	5	1 0	250	..	37·86	160	128
D Burnham (Chalbury)	H. A. Smith Spark, Esq.	5	1 0	20	29·1	32·64	158	115
D Burnham	W. H. Chowins, Esq., C.E.	8	0 8	24	28·5	30·95	153	118
Burnham (Berrow Road)	Rev. C. E. B. Fripp	5	1 0	10	29·3	32·98	144	117
D Burnham (Brent Knoll)	J. Griffith, Esq.	5	1 9	25	30·3	31·87	164	110
D Cheddar (Pumping Station)	J. A. McPherson, Esq., C.E.	5	1 0	50	33·6	39·04	151	116
w Charterhouse	J. A. McPherson, Esq., C.E.	5	1 0	619	43·2	47·02	..	..
w Compton Martin	J. A. McPherson, Esq., C.E.	5	1 0	276	42·4	45·19	..	..
D Shipham (Studleigh End)	Miss E. M. Garaway	5	1 0	540	..	40·73	161	116
w Ubley (Rookery Farm)	J. A. McPherson, Esq., C.E.	5	1 0	525	44·9	47·36	..	..
D Winscombe (The Down)	J. Grubb, Esq.	5	1 0	295	35·8	40·70	155	116
D Banwell (Eversleigh)	Dr. Kenneth Anderson	5	1 6	50	33·9	35·29	160	114
w Blagdon Hill	J. A. McPherson, Esq., C.E.	5	1 0	550	40·6	48·01	..	..
D Blagdon (Pumping Station)	J. A. McPherson, Esq., C.E.	5	1 0	112	37·0	43·31	145	110
w Blagdon (Coombe Lodge)	J. A. McPherson, Esq., C.E.	5	1 0	388	39·6	46·53	..	..

† *Per* Mid-Wessex Rainfall Association.

DIVISION V.—SOUTH WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SOMERSETSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—YEO, AXE & BRUE—(*con.*).								
w Nempnett (West Town)	J. A. McPherson, Esq., C.E.	5	1 0	263	36·3	40·90	..	..
w Burrington (Burrington Links)	J. A. McPherson, Esq., C.E.	5	1 0	335	38·1	43·51	..	..
D Weston-spr-Mare (Clarence Pk.)	W. H. Allen, Esq.	5	1 0	29	29·9	32·27	147	105
D Churchill (Langford House)	Sidney Hill, Esq., J.P.	8	0 10	90	..	43·15	163	118
w Butcombe (Cholwell)	J. A. McPherson, Esq., C.E.	5	1 0	370	38·9	42·22	..	..
D Wrington (The Cottage)	H. C. Bristowe, Esq., M.D.	5	1 3	100	33·2	36·59	146	107
D Wrington (West Hay)	Miss M. C. Meade-King	5	1 2	98	34·0	38·13	177	127
D Yatton (Chelvey)	J. A. McPherson, Esq., C.E.	5	1 0	60	32·5	38·56	147	111
D Backwell Hill	W. Garnett, Esq.	5	1 0	490	33·2	38·21	130	113
D West Town	Theodore Robinson, Esq.	5	1 0	80	34·6	37·27	158	115
D Clevedon (Gas Works)	J. Harger Pye, Esq.	5	1 2	22	33·5	33·19	138	115
D Clevedon W.W. (Tickenham Rd.)	J. Harger Pye, Esq.	5	1 6	70	31·2	34·03	145	112
d Clevedon (Bowling Green)	Mr. H. H. Brook	5	0 11	126	33·8	37·19	..	..
D Clevedon (Mt. Heber Cottage)	G. M. S. Farmer, Esq.	5	1 0	144	34·3	36·68	157	111
D Wraxall Court	Mr. G. Hyde	5	0 10	200	..	37·19	142	127
3.—PARRETT. 568 sq. mi.								
D Chard (High Street Council Sch.)	F. Barnard, Esq.	5	1 2	425	39·1	42·34	160	112
D Crewkerne (The Reservoir)	E. H. Munford, Esq.	8	1 0	426	33·7	32·48	144	112
D Crewkerne (Bincombe House)	Mrs. R. H. Symons	5	1 3	293	34·7	38·29	133	108
D Crewkerne (Mark's Barn)	Mrs. R. Blake	8	0 9	260	32·1	30·92	147	105
D Chaffcombe House	Col. L. H. Noblett	5	0 10	400	33·1	40·62	164	107
D Combe St. Nicholas	Rev. G. de Y. Aldridge	5	1 0	580	38·4	41·92	180	113
Coker Court Gardens	Mr. T. H. Gilham	5	1 6	255	33·7	38·75	..	122
D West Coker	G. F. Deedes, Esq.	5	1 6	265	..	30·72?	133	104
D Ilminster (Whitelackington Ho.)	S. Creed, Esq.	5	3 0	200	33·0	40·14	141	98
D Ilminster (Dillington Park) (R)	Mr. W. Goldthorpe	8	2 0	161	..	37·72	129	105
D Yeovil (Reckleford Sch.)	The Headmaster	5	8 0	150	..	33·14	143	110
D Yeovil (Pen Mill Sewage Works)	Dr. C. W. Gee	5	1 0	102	30·6	36·11	171	124
D Pitminster (Blagdon Hill)	G. L. Sidey, Esq.	5	0 10	750	..	46·91	173	123
D Stoke-under-Ham	Miss M. H. Gillett	9	1 0	80	..	35·51	149	108
D Angersleigh (Leigh Court)	A. Eastwood, Esq.	8	1 0	360	35·0	40·15	165	116
D Ashbrittle (Kyrle)	Major J. H. Mathias	5	0 9	525	..	46·08	178	131
D Martock Vicarage	Rev. G. W. Saunders	5	0 9	61	29·6	29·18	136	109
D Ash (The Grange)	L. C. R. Tring, Esq.	5	1 3	150	..	32·90	135	117
D Rimpton	P. B. Cardwell, Esq.*	5	1 0	147	..	30·84	167	126
D Taunton (The Park)	Dr. John Allen	5	1 0	71	29·5	33·63	154	103
D Taunton (Holy Trinity School)	A. P. Guest, Esq., M.B.E.	5	1 0	65	29·1	33·44	163	109
D Milverton (Spring Grove)	Major R. C. Coldwell	5	1 0	449	36·7	42·19	160	128
D Wiveliscombe (Culverhead)	G. R. Marsh, Esq.	5	1 0	450	39·6	45·13	130	123
D Langport (The Grange)	Miss V. M. Page	5	1 0	50	27·9	26·96	171	110
D Langport (Council School)	H. G. Jefferies, Esq.	5	1 0	52	28·1	29·50	152	106
D N. Cheriton (Maperton House)	Mr. W. Smith	5	1 3	390	35·3	34.62	152	123
D Somerton (The Grange)	R. W. Pretor-Pinney, Esq.	5	1 0	106	27·8	27·31	138	109
D Bishop's Lydeard (Watts Ho.)	Sir Dennis Boles, Bart.	8	1 2	320	..	34·75	151	110
D North Newton	D. W. Hurd, Esq.	5	0 9	50	..	31·11	160	106
D Aisholt (Timbercombe)	Mrs. White	5	1 2	700	33·2	38·36	152	117
D Bagborough Rectory	C. Hubert Lance, Esq.	9	1 0	470	34·1	38·32	175	127
D Bridgwater (Blake Gardens)	R. A. Watson, Esq.	5	3 1	27	28·5	32·19	147	116
D Bridgwater (Wembdon Road)	H. Corder, Esq.	5	0 8	30	29·9	33·56	142	108
D Spaxton (Furzydown)	Mrs. C. Woodhouse	5	0 9	300	..	36·13	154	114
d Over Stowey (Quantock San.)	Medical Superintendent	5	1 0	430	..	37·37	..	104
D Cannington (Ashford)	R. A. Watson, Esq.	5	1 1	102	31·4	31·86	152	112
D Cannington (Farm Inst.)	G. E. Furse, Esq.	5	1 0	95	..	30·24	158	110

* *Per* Mid-Wessex Rainfall Association.

DIVISION V.—SOUTH WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
SOMERSETSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—NORTH COAST STREAMS. 158 sq. mi.								
D Elworthy (Willett)*	H. C. Venning, Esq.	5	1 0	450	35·1	41·41	135	121
D Croydon Hall	Capt. J. W. Bridges	5	2 9	600	41·6	45·59	163	131
D Bicknoller (Ford)	John Tracey, Esq.	5	1 2	150	33·0	37·82	161	123
D Williton (Aller Farm)	R. G. Hosegood, Esq.	5	3 0	175	32·4	37·75	143	119
D Williton (The White House)	S. L. Rogers, Esq., J.P.	5	1 0	97	30·6	35·62	143	113
D Kilve Court	J. C. Hurle, Esq.	5	1 0	150	30·0	33·69	151	114
D Stogursey	Dr. P. Hallam	5	0 8	145	..	31·93	148	111
D Stogursey (Fairfield House)	Lord St. Audries	5	1 0	150	31·1	33·12	154	114
D Dunster	P. R. Day, Esq.	5	1 0	160	33·0	40·26	147	121
D Minehead (Blenheim Gdns.)	A. Douglas Barron, Esq.	5	1 0	40	..	37·28	149	121
D Minehead (The Parks)	Dr. R. L. Robinson	5	1 0	90	..	34·15?	138	123
D Porlock (Lynch Mead Allerford)	J. Dyke Acland, Esq.	5	1 6	113	34·6	38·20	179	122
D Porlock (Bush Steep)	Mrs. W. P. Holmes	5	0 9	130	43·2	38·35?	149	110
d West Porlock (Underway)	N. G. Hadden, Esq.	5	1 0	100	44·2	53·57	..	124
D Culbone (Lillycombe)	E. T. MacDermot, Esq.	5	1 0	1210	50·5	56·16	188	157
5.—EXE. 122 sq. mi.								
d Churchstanton	Mrs Hughes	5	1 0	800	..	(40·60)	..	..
D Exbridge	G. C. Hartly, Esq.	5	3 0	410	44·1	48·03	166	132
D Brushford Rectory	Rev. B. J. du Boe	5	1 0	450	44·3	51·17	168	136
D Brushford Nurseries	Mr. G. Ruff	5	1 2	430	44·1	47·86	177	131
D Dulverton C. E. School	C. J. R. Weaver, Esq.	5	0 9	550	..	51·83	170	140
D Hawkridge (Liscombe)	Mr. E. W. Darby	5	1 0	980	57·8	56·73	184	156
D Withypool (Comers Cross)	J. Warry, Esq.	5	1 0	1140	..	51·98?	147	129
D Cutcombe (Wheddon Cross)	W. J. Tovey, Esq.	5	1 6	945	49·5	56·73	176	148
Exford (North Ley)	F. G. Heal, Esq.	5	1 6	1000	54·8	59·18	..	..
D Exford (Foxcombe)	Cmdr. Q. B. Preston-Thomas, R.N.	5	1 0	1040	53·7	57·52	191	154
6.—AXE. 42 sq. mi.								
Wayford Manor	H. L. P. Baker, Esq.	5	0 10	250	..	41·41	..	..
D Cricket St. Thomas	Mr. C. G. Rose	5	1 0	444	39·3	42·46	146	122
7.—STOUR. 35 sq. mi.								
D Temple Combe Rectory	Rev. Preb. R. W. Windsor	5	1 1	250	34·9	35·66	145	120
D Temple Combe (Cheriton Ho.)	W. Wise, Esq.†	..	..	..	31·1	33·57	148	121
D Wincanton (Roundhill Grange)	Maj.-Gen. C. H. P. Ducat	5	1 11	375	32·7	33·02	164	129

DIVISION VI.—WEST MIDLAND COUNTIES.

GLOUCESTERSHIRE. (Area, 1243 sq. mi.)

1.—WYE. 50 sq. mi.								
D Chepstow (Castleford)	Mrs. W. R. Lysaght	5	0 11	146	..	41·96	159	119
D St. Briavels (St. Briavels House)	Surg. Capt. O. W. Andrews, RN.	5	1 0	750	..	49·81	152	118
d Forest of Dean (Mailscot Lodge)	Office of Woods	8	1 4	630	..	34·63	..	..
D English Bicknor (Bicknor House)	T. F. Harvey, Esq.	5	1 0	490	..	34·75	136	103
D Lydbrook (Viaduct House)	G. S. Damsell, Esq.	5	1 0	95	..	34·90	153	109
2.—SEVERN—Right Bank Tributaries. 176 sq. mi.								
D Lydney (Clanna Cottage)	Brig.-Gen. A. M. Tyler, C.M.G.	8	0 10	359	..	42·79	149	111
d Forest of Dean (Whitemead Pk.)	Office of Woods	8	1 0	200	..	41·51	..	..
D Forest of Dean (Worcester Lo.)	Office of Woods	8	0 11	712	..	42·71	145	119
D Coleford (Cannop Colliery)	J. J. Joynes, Esq.	5	10 0	300	..	39·45	145	110
D Westbury-on-Severn (Elton)	Samuel Bullock, Esq.	5	1 4	85	..	34·77	135	101
D Westbury-on-Severn (Ninnage L.)	Miss N. E. Grant	5	1 0	120	..	31·76	134	102
D Forest of Dean (Edgehills Lodge)	Office of Woods	8	1 0	915	..	39·73	155	119
D Newent (Clifford Manor)	F. F. Grafton, Esq.	5	1 5	310	..	34·53	139	112
d Newent (Taynton)	M. Philips Price, Esq.	5	1 0	50	..	31·25	..	..
D Oxenhall (Dymock Woods)	Office of Woods	8	1 0	232	..	29·74	122	97
D Bromsberrow Heath Pump. Stat.	W. Osborne Thorp, Esq., C.E.	5	1 0	181	..	31·51	121	102
D Tewkesbury (Forthampton Ct.)	Mr. B. Webster	5	1 0	48	..	25·37	141	104
D Tewkesbury (Upper Lode)	J. E. Bradley, Esq.	5	1 0	41	25·2	27·27	131	101
D Chipping Sodbury (Horton Hall)	Colonel P. Burges	5	1 0	380	31·5	32·04	145	116
d Thornbury (Thornbury House)	H. V. Gillett, Esq.	5	1 0	110	..	34·78	..	..

* Previously known as Bicknoller (Willett).

† *Per* Mid-Wessex Rainfall Association.

DIVISION VI.—WEST MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
GLOUCESTERSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
3.—SEVERN—Left Bank Tributaries. 372 sq. mi.								
D Thornbury (Thornbury Park)	Capt. R. A. Bennett	5	1 3	70	..	35·18	136	105
D Tortworth Court	Mr. J. Banting	8	1 0	264	..	34·59	150	111
D Tortworth School	E. A. Smith, Esq.	5	1 6	264	..	35·15	142	113
D Wotton-under-Edge (Claremont)	R. Penney, Esq.,	5	1 0	350	..	28·90	160	105
d North Nibley (Nibley House)	Lt.-Col. J. D. Buckton, V.D.	5	1 0	380	..	(32·03)	..	..
D Dursley (The Manor)	Miss H. M. Hutton	5	1 0	274	31·8	32·78	146	110
Avening House	Lady Eleanor Byng	8	1 3	350	31·6	31·05	..	..
D Avening (Gatcombe)	Colonel H. G. Ricardo	8	1 0	550	..	32·50	132	111
D Berkeley Castle Gardens	Mr. T. B. Ashbee	5	1 6	60	..	33·77	136	111
D Nailsworth (Three Corners)	F. R. Rushton, Esq.	5	0 9	325	33·4	33·81	150	110
D Berkeley (Sharpness Docks)	A. J. Cullis, Esq., C.E.	5	1 3	50	..	32·70	127	99
D Minchinhampton (The Shard)	E. H. Denne, Esq.	5	0 8	500	31·4	32·65	148	108
D Minchinhampton (Rectory Cott.)	G. W. Fisher, Esq.	5	1 0	610	32·9	35·50	149	110
D Minchinhampton (Camp Field)	Miss B. M. Legh	5	1 6	640	25·8	37·71	162	112
D Frocester Manor	Capt. J. E. H. Graham-Clarke	5	1 3	80	..	29·86	128	98
D Stroud (Stanley Park Gdns.)	Sir P. S. Marling, Bt., V.C., C.B.	5	1 0	365	..	36·32	120	108
D Stroud (Rodborough)	Rev. W. A. Jones	5	1 0	400	30·7	33·73	146	109
D Stonehouse (Wycliffe College)	W. A. Sibly, Esq.	5	1 0	120	28·5	32·35	137	99
Stroud (Berrimans)	E. Armitage, Esq.	5	1 0	750	33·2	38·03	..	..
D Stonehouse (Parklands)	W. Grey Robinson, Esq. J.P.	5	2 6	103	26·9	28·84	146	105
M Stroud (Lypiatt Park)	Mr. A. J. Buck	5	1 3	820	..	35·01	..	..
D Whitminster (The Junction)	A. J. Cullis, Esq., C.E.	5	1 0	32	..	33·21	154	109
D Haresfield Court	Miss Tidswell	5	0 10	100	..	35·59	143	111
D Harescombe Grange	Stamford Hutton, Esq.	5	1 0	557	28·7	32·69	149	109
D Quedgeley House	Miss M. F. Curtis-Hayward	5	1 3	65	27·9	29·99	145	103
D Witcombe Reservoir	C. J. Scudamore, Esq., C.E.	8	1 0	297	29·2	30·57	143	105
D Brockworth (The Kia)	Mrs. Grace Buckle	5	1 4	220	..	29·30	133	101
D Gloucester (The Park)	R. H. Ellis, Esq.	5	1 3	56	..	27·91	146	101
D Gloucester (Llanthony Lock)	J. E. Bradley, Esq.	5	1 2	39	..	27·52	123	97
D Gloucester (Maisemore Lock)	J. E. Bradley, Esq.	5	1 1	39	..	26·19	144	105
D Churchdown (Barrow Hill)	Mrs. J. H. Jones	5	1 0	225	..	30·81	146	122
D Dowdeswell Reservoir	J. S. Pickering, Esq., C.E.	5	1 3	357	..	32·55	137	108
D Cheltenham (Thirlestane Hl) (R)	J. Player, Esq.	8	2 0	240	..	29·10	142	102
D Charlton Kings (The Grange)	Miss E. M. Heberden	5	0 9	300	..	32·72	151	105
D Cheltenham (Hewletts Res.)	J. S. Pickering, Esq., C.E.	8	1 6	419	..	29·26	136	108
D Cheltenham (Sandford Mead)	J. S. Pickering, Esq., C.E.	5	2 6	210	..	29·10	129	103
D Cheltenham (Montpellier Gds.)	Town Clerk	5	1 0	214	26·5	27·16	133	98
D Cheltenham (Suffolk Square)	Rev. Preb. H. T. Williamson	5	1 0	227	..	(26·05)	145	106
D Cheltenham (Swindon)	J. C. M. Stanton. Esq.	8	1 2	136	..	25·95	142	100
D Cheltenham (Cleeve Hill)	late C. H. Bastow, Esq.	5	1 0	660	..	29·29	147	104
D Tewkesbury Pumping Station	J. S. Pickering, Esq., C.E.	5	1 0	47	..	23·19	134	94
4.—SEVERN—Upper Avon. 99 sq. mi.								
D Winchcombe (Sudeley Castle)	Major J. H. D. Brocklehurst.	5	1 0	357	..	27·85	129	106
D Broadway (Buckland Manor)	Mr. J. Whiteley	5	1 0	300	..	27·00	142	110
D Mickleton (Bank House)	M. J. Salter, Esq.	5	1 0	250	25·0	25·35	140	100
5.—LOWER AVON & C. 198 sq. mi.								
D Bath (Monkswood Reservoir)	Philip Porteous, Esq., C.E.	6	1 6	365	..	33·71	164	125
D Bristol (Tyndalls Pk. Rd.) (+A)	Maj. E. J. Dunscombe, R.F.A.	5	1 4	150	..	33·97	154	112
D Bristol (Redland)	H. A. Rogers, Esq.	5	1 6	180	..	34·42	151	111
D Clifton (Oakfield Road)	J. A. McPherson, Esq., C.E.	5	1 0	200	..	34.86	136	111
D Clifton (All Saints Rd.)	H. T. Coles, Esq.	5	0 11	200	..	38·46	183	120
Bristol (St. Andrew's Park)	H. Vicars Webb, Esq.	5	1 6	200	..	35·35	..	113
D Shirehampton (Kings Weston)	P. Napier Miles, Esq.	8	1 0	220	..	37·46	137	113
D Filton	F. W. Gayner, Esq.	5	1 0	200	..	32·05	145	112
Winterbourne (Kendleshire)	J. Marsh, Esq.	5	1 0	170	..	32·41	..	..
D Frampton Cotterell (Park Ho.)	H. H. Harding, Esq.	5	1 0	158	..	32·77	150	108
D Badminton Gardens	The Head Gardener	5	0 9	407	..	34·03	146	119
D Almondsbury (Ridgewood)	R. E. Potter, Esq..	5	0 10	200	..	32·90	136	109

DIVISION VI.—WEST MIDLAND COUNTIES—(*con.*)

STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
GLOUCESTERSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
6.—THAMES—Right Bank Tributaries. 15 sq. mi.								
7.—THAMES—Windrush & c. 333 sq. mi.								
D Somerford Keynes (Manor Ho.)	F. Fawcett, Esq.	5	0 9	450	..	26·51	129	110
D Fairford (Dunfield, Kempsford)	A. T. Iles, Esq.	5	1 0	260	25·6	26·08	135	109
D Maisey Hampton (The Nest)	W. L. Stanton, Esq.	5	1 1	345	..	27·09	143	115
D Fairford Vicarage	Rev. Canon R. C. S. Jones	5	1 0	280	..	26·10	145	121
Lechlade (St. John's Lock)	Thames Conservancy	5	1 0	236	..	23·49	138	105
D Lechlade (Claydon House)	T. T. S. Metcalfe, Esq.	5	1 0	250	..	23·72	144	110
D Cirencester (Cripps Mead)	Mrs. Wilfred Cripps	8	0 8	366	..	30·36	152	116
d Cirencester (Argyll House)	Prof. E. Blundell	5	1 0	325	..	30·12	..	..
D Cirencester (Gwynfa)	Nigel Woods, Esq.	5	1 0	354	30·8	31·23	152	110
D Daglingworth Manor	J. Herbert Scrutton, Esq.	8	0 10	450	31·1	32·28	138	113
D Cirencester (Barnsley Pk.)	H. W. Wykeham-Musgrave, Esq.	5	0 9	495	..	33·02	149	115
D Aldsworth	T. Rich, Esq.	5	1 6	430	..	30·47	136	109
D Great Barrington	H. J. Barrett, Esq.	5	1 6	417	..	30·47	143	110
d Northleach (Sherborne House)	Mr. A. Mitchell	5	1 0	420	30·7	30·61	..	114
D Northleach (Leygore Manor)	Arthur E. Moss, Esq.	5	1 0	650	..	30·67	154	112
D Bourton-on-Water (Eastfield)	E. W. Kendall, Esq.	5	1 6	434	..	31·40	138	108
D Bourton-on-Water (Chardwar)	Miss A. B. Moore	5	1 0	430	..	31·69	133	100
D Bourton-on-Water (Rectory)	Canon W. E. White	5	0 10	433	..	31·59	123	103
D Stow-on-the-Wold (Icomb Place)	Capt. G. H. Simpson Hayward	8	1 3	500	..	30·11	141	111
D Winchcombe (Temple Guiting Ho.)	Major C. Stacey	5	1 3	700	..	31·73	151	122
HEREFORDSHIRE. (Area, 840 sq. mi.)								
1.—WYE. 685 sq. mi.								
D Goodrich Court Gardens	Mrs. G. R. Trafford	5	1 8	200	29·7	32·03	124	116
d Walford (Hill Court)	G. R. Trafford, Esq.	5	1 1	161	28·4	31·90	..	..
D Ross (County Observatory). (+A)	F. J. Parsons, Esq.	5	1 0	223	27·4	31·20	139	97
D **Ross (Birchlea)**	**Miss M. L. Southall**	5	1 0	210	28·2	30·21	(148)	(103)
D Bridstow (Ashe Leigh)	Major W. Stanley R. Cox	5	1 0	230	27·4	31·62	139	103
Kentchurch School	Mrs. V. A. Evans	5	1 0	200	..	37·54	114	103
D Kentchurch Rectory	Rev. R. P. Dansey	5	1 0	220	34·6	40·54	143	107
D Ross (The Chantry)	M. F. Maclean, Esq.	5	0 10	475	..	26·43	151	109
D Perrystone Court	Major-Gen. G. S. Clive, D.S.O.	5	1 3	450	25·5	27·41	121	96
Brockhampton Court	Mrs. A. W. Foster	8	2 0	500	27·7	29·95	..	..
D Fownhope (Morney Cross)	A. P. Maudslay, Esq., D.Sc.	5	1 0	200	..	30·53	163	105
D Vowchurch (Ladywell House)	A. S. Wood, Esq.	5	1 0	400	34·9	41·00	153	104
d Hereford (Belmont Abbey)	The Prior	8	1 0	292	27·6	(29·78)	..	93
D Hereford (Barton House)	Rev. A. G. Jones	8	1 0	179	26·3	29·62	156	102
D Hereford (Breinton Court)	Mrs. R. E. H. Baily	5	1 0	238	25·9	28·80	147	101
d Tarrington (Alder's End)	J. H. Whiting, Esq.	5	1 2	360	..	29·83	..	102
D Dorstone (Oaklands)	Robert Gray, Esq.	5	1 0	486	..	39·93	154	112
D Hereford (Holmer Hall)	Miss M. S. Hopton	8	1 3	244	25·1	30·19	146	106
Tyberton Court	Major C. B. L. Warner	5	0 10	276	..	33·34	..	..
D Credenhill (Stretton Sugwas)	Capt. S. H. Armitage	5	1 0	226	25·8	31·04	145	111
d Credenhill	F. E. Whiting, Esq.	5	1 5	275	27·5	32·06	..	100
D Burghill	F. Boddington, Esq.	5	1 0	310	..	28·43	140	100
D Ocle Pychard (Ocle Court)	G. Cresswell, Esq.	8	1 0	298	27·8	30·30	159	102
D Sarnesfield Court	Rev. W. Marshall	5	1 0	378	..	29·48	155	110
d Weobley School	A. J. Dean, Esq.	5	1 0	320	29·5	31·88	159	104
D Dilwyn (Townsend House)	Dr. T. Lambert Hall	5	0 8	290	27·6	30·30	133	105
D Pembridge (Burton Court)	Mrs. P. Clowes	5	1 6	400	28·4	34·45	164	117
D Bromyard (Birchyfields)	Lt.-Col. J. E. Knott, D.S.O.	5	1 3	545	..	29·32	133	107
D Bromyard (Dumbleton Cottage)	T. V. Philpott, Esq., M.A.	5	1 0	393	29·0	29·34	144	103
D Kington (Lynhales)	Mrs. R. F. Hibbert	5	1 0	620	..	33·69	160	111
Kington (The Ovals)	S. Robinson, Esq.	5	0 8	700	..	33·93	..	..
D Kington (Hill Court)	J. E. Barendt, Esq.	5	0 8	595	..	35·97	160	115
M Kington (Sunset)	H. Langston, Esq.	5	1 6	495	32·0	31·87	..	..
D **Humber Rectory**	**Rev. B. G. Way**	5	1 6	450	30·9	30·03	145	107
D Leominster (Hennor)	Capt. L. R. Hibbert	5	1 1	440	..	29·39	163	108
D Leominster (Fairholme)	E. B. Reynolds, Esq.	5	0 9	285	28·5	31·29	156	112
D **Kimbolton (Grantsfield)**	**J. M. Hutchinson, Esq.**	5	1 0	424	28·4	30·28	157	112
D **Eyton (Old Hall)**	**R. H. Evans, Esq.**	5	0 9	310	27·9	31·97	158	114

DIVISION VI.—WEST MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
HEREFORDSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—SEVERN.—Right Bank Tributaries. 155 sq. mi.								
d Ledbury (Donnington Hall)	Col. C. Spence-Colby, C.M.G.	5	1 0	..	..	28·94	..	101
D Much Marcle (The Mount)	Miss A. M. Charles	5	1 0	240	25·8	28·05	135	105
D Much Marcle (Hall Court)	Mrs. J. J. S. Powell	5	1 0	200	..	28·74	147	102
D Ledbury (Underdown)	S. H. Bickham, Esq.	5	1 0	307	27·1	28·75	138	108
D Colwall (The Downs)	F. M. Day, Esq.	5	1 0	500	..	28·88	131	101
Cradley (Mill Bank)	Lt.-Col. E. H. Thurlow	5	1 0	320	28·4	27·99	..	106
D Whitbourne School	Miss M. Hall	5	1 0	200	..	27·80	128	97
D Brampton Bryan	A. W. Jenkins, Esq.	8	1 2	450	..	32·52	149	102
D Leintwardine	E. Charnock, Esq.	5	1 6	450	31·9	35·53	188	116
SHROPSHIRE. (Area, 1343 sq. mi.)								
1.—MERSEY.—Weaver. 27 sq. mi.								
2.—DEE. 30 sq. mi.								
D Whitchurch (Fenns Bank)	M. W. Sowden, Esq., C.E.	8	1 0	271	27·1	29·78	160	133
D Overton (Sodylt Hall)	W. H. Horsfall, Esq.	5	1 0	266	29·7	31·42	133	129
3.—SEVERN.—Right Bank Tributaries. 722 sq. mi.								
d Ludlow (Southcot)	C. T. Marston, Esq.	5	1 0	399	..	29·30	144	103
D Bromfield (Oakley Park)	Mr. J. R. Francis	5	1 0	300	29·7	30·27	130	104
D Bromfield (Warwick House)	F. Brayshaw, Esq.	5	1 0	320	30·3	31·37	154	109
D Bitterley Rectory	Rev. Preb. J. R. Burton	5	1 6	509	28·1	26·13	131	107
D Stanton Lacy Vicarage	Miss I. Armitage	5	1 0	304	28·1	30·34	155	108
M Llanfairwaterdine (The Green)	The Meteorological Office.	5	1 0	950	31·8	36·90	..	..
D Culmington Manor	T. W. Shaw, Esq.	5	1 4	590	29·6	32·49	138	109
D Wistanstow	J. W. Clarke, Esq.	8	1 0	480	..	33·31	144	113
D Burwarton Hall	Rt. Hon. Viscount Boyne	5	0 9	894	33·6	35·83	131	115
D Lydbury North (Totterton H.)	Major W. H. B. Whitaker	5	1 3	700	30·8	28·29	162	115
D Bishops Castle (Castle Street)	E. Griffiths, Esq.	5	1 0	720	31·0	36·13	159	120
D Bishop's Castle (Lydham)	C. A. F. Radford, Esq.	5	1 0	600	..	33·21	172	122
D Church Stretton (Sewage Works)	E. J. Marsh, Esq.	5	1 0	582	33·7	36·45	174	126
d Church Stretton (St. Margaret's)	Rev. J. H. Kidson	5	0 11	672	..	36·56	173	129
D Bridgnorth (Cantreyn)	W. Bayliss, Esq.	5	1 0	290	26·7	26·99	143	111
D Chirbury (Marrington Hall)	Lt.-Col. S. D. Price-Davies.	5	1 0	490	29·5	29·04	147	114
D Church Preen (Preen Cottage)	Miss Edith Hopkins	5	1 0	760	29·1	29·31	127	108
D Church Stretton (Wolstaston)	Rev. Alan Clover, M.A.	5	1 0	795	31·9	35·91	160	124
D Much Wenlock (Willey Park)	Col. Lord Forester	5	3 0	492	28·2	29·67	146	111
D Dorrington School	J. A. Narraway, Esq.	5	1 2	250	..	29·44	143	112
D Broseley (Jackfield Rectory)	A. Burdett, Esq.	5	1 6	400	..	25·75	128	102
D Shrewsbury (Beckbury House)	G. H. Horsfall, Esq.	5	0 9	220	22·1	24·80	146	110
D Shrewsbury (Radbrook Hall)	Major D. D. Macpherson, J.P.	5	0 8	235	24·3	24·84	171	114
D Shrewsbury (Longden Road)	W. Deedes, Esq.	5	1 6	250	..	24·27	134	95
4.—SEVERN.—Left Bank Tributaries. 564 sq. mi.								
Bridgnorth (Coton Hall)	Capt. W. Colville	5	1 6	460	27·8	27·95	146	103
D Bridgnorth (Quatt)	G. C. Wolryche-Whitmore, Esq.	5	1 6	250	..	28·30	164	114
D Ackleton (The Folley)	H. J. Bath, Esq.	5	1 0	230	..	25·57	169	106
Ackleton House	F. J. Neale, Esq.	8	1 3	270	..	24·90	151	105
D Shifnal (Hatton Grange)	Mr. G. Risebrow	5	1 6	262	26·1	24·93	155	110
D Shifnal (Cosford W. W.)	B. L. McMillan, Esq., C.E.	5	0 11	222	..	25·02	142	104
D Shifnal (National Schools)	T. F. Chard, Esq.	5	1 5	283	28·2	25·96	133	94
D Wellington W.W. (Wrekin Res.)	W. Walker, Esq.	6	2 6	478	25·7	27·23	122	101
D Shrewsbury (Copthorne)	W. H. Purslow, Esq.	8	1 0	252	..	24·25	151	111
D Shrewsbury (Coton Hill)	Dr. M. Gepp	5	1 1	190	22·1	22·57	159	103
D Shrewsbury (Roden)	J. W. Nowell, Esq.	8	1 2	209	25·2	23·99	157	104
Shrewsbury (Fitz Rectory)	Rev. W. Brewster	5	1 2	238	26·2	23·75	152	..
D Newport (Aston Hall)	Col. R. Leeke	5	0 11	280	27·7	25·60	157	113
D Newport (Agricultural College)	The Principal	5	1 0	211	24·8	24·42	158	109

DIVISION VI.—WEST MIDLAND COUNTIES—(*con.*).

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SHROPSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—SEVERN—Left Bank Tributaries—(*con.*)								
D Newport (Chetwynd Park)	Mrs. Burton Borough	5	0 6	240	28·3	27·74	172	129
D Grinshill (Sansaw Hall Gardens)	Capt. F. B. Bibby	5	0 10	300	25·7	29·44	172	140
D Myddle (Marton Hall)	Major R. W. Doyne	5	0 9	280	27·4	26·09	152	126
D Cheswardine (Knighton Res.)	Canal Engineer, L.M.&S.R.	8	1 0	351	30·0	29·71	170	129
D Cheswardine Hall	Col.R.C.Donaldson-Hudson	5	1 6	530	28·6	27·99	163	115
D Oswestry (Mount Res.)	G. W. Lacey, Esq., C.E.	5	1 0	698	34·5	35·31	179	132
D Oswestry (Council School)	E. Compton, Esq.	5	1 0	450	32·4	35·42	170	126
D Norton-in-Hales School	Chas. Chadwick, Esq.	5	1 3	350	30·5	30·01	175	143
STAFFORDSHIRE. (Area, 1171 sq. mi.)								
1.—MERSEY—Weaver. 50 sq. mi.								
D Biddulph Grange	G. N. Lea, Esq.	5	1 4	570	36·0	36·53	159	129
2.—SEVERN—Left Bank Tributaries. 160 sq. mi.								
D Kinver (Prestwood)	F. J. Dixon, Esq., C.E.	5	1 0	179	..	24·44	132	96
D Kingswinford (Ashwood P.S.)	F. J. Dixon, Esq., C.E.	5	1 0	207	24·9	26·67	151	105
D Dudley (Shavers End)	F. J. Dixon, Esq., C.E.	5	1 0	745	..	27·19	144	105
D Penn (Church Hill)	Mrs. H. N. Fowler	5	1 1	500	..	26·07	150	102
Wolverhampton (Copthorne Rd)	Kenneth C.Berrington,Esq.	5	0 9	505	26·6	29·08	..	116
D Wolverhampton (West Park)	Dr. R. H. H. Jolly	5	0 10	430	27·1	27·32	169	112
d Wolverhampton(MerridaleGro.)	H. Hodgkinson, Esq.	5	1 3	..	..	24·66	..	102
D Tettenhall (The Hollies)	R. C. Sikes, Esq., C.E.	5	1 0	355	26·7	26·43	171	113
D Tettenhall Waterworks	B. L. McMillan, Esq.	5	0 10	468	..	25·81	148	111
D Patshull Park	Earl of Dartmouth, K.C.B.	8	1 4	279	26·8	26·86	134	111
D Shifnal (Weston Park)	Earl of Bradford	5	1 6	400	27·3	26·59	159	115
D Norbury Junction	Canal Engineer, L.M.&S.R.	8	1 0	332	28·0	27·22	173	124
D Market Drayton (Old Springs) *old g*	F. E. Harding, Esq.	5	1 0	422	28·9	28·93	185	124
D Maer Hall Gardens	Miss Harrison, M.B.E.	8	1 3	390	32·5	31·83	135	117
3.—TRENT—Right Bank Tributaries. 518 sq. mi.								
D West Bromwich (+A)	A.D.Greatorex, Esq., C.E.	8	1 7	543	26·1	28·02	139	108
D Wednesbury (Ocker Hill)	Col.H.K.S.Woodhouse,C.E.	5	1 0	476	24·8	23·57	151	109
D Walsall (Bescot Sewage Farm)	J. Taylor, Esq., C.E.	8	0 11	376	26·9	28·02	174	112
D Walsall (Wednesbury Sew. Wks)	G. Wicks, Esq.	5	1 0	378	27·9	25·70	148	105
D Walsall (Gorway)	J. Cleland, Esq.	5	1 0	440	..	24·50	123	99
D Darlaston (Sewage Works)	S. E. Hammonds, Esq.	8	1 6	393	..	25·85	137	101
D Bilston (The Lunt Outfall)	A. F. B. Sidwick, Esq., C.E.	8	1 0	419	27·3	27·61	163	107
D Aldridge (Bourne Vale)	F. J. Dixon, Esq., C.E.	5	1 0	419	25·1	24·39	144	106
D Shenstone (Little Hay)	F. J. Dixon, Esq., C.E.	5	1 0	298	..	24·46	131	100
D Bloxwich (Sneyd Reservoir)	Col.H.K.S.Woodhouse,C.E.	5	1 0	507	25·5	26·38	167	120
D Brownhills	S. Harrison, Esq., C.E.	8	1 0	492	26·8	26·03	158	111
D Brewood (Slade Heath P.S.)	F. J. Dixon, Esq., C.E.	5	1 0	340	24·9	26·08	142	110
D Hammerwich(Cannock Ch. Res.)	Col.H.K.S.Woodhouse,C.E.	5	1 0	475	25·3	26·81	165	121
D Brewood (Belvide Reservoir)	Canal Engineer, L.M.&S.R.	5	1 0	367	..	26·92	151	110
D Lichfield (St. John Street)	Dr. F. M. Rowland, C.B.E.	5	1 0	269	27·5	23·86	167	112
D Hednesford (Scout House) *old g*	F. J. Dixon, Esq., C.E.	5	1 0	750	..	23·98	150	101
D Hednesford (Scout House) *new g*	F. J. Dixon, Esq., C.E.	5	1 0	730	..	26·09	154	113
D Rugeley (Longdon Lodge)	F. J. Dixon, Esq., C.E.	5	1 0	413	26·1	24·99	147	111
D Lichfield (Hanch Reservoir)	F. J. Dixon, Esq., C.E.	5	1 0	259	..	24·04	152	106
D Rugeley (Brindley Bank)	F. J. Dixon, Esq., C.E.	5	1 0	254	26·3	24·74	144	104
D Milford Waterworks	W. Plant, Esq., C.E.	5	1 0	246	27·5	25·93	146	110
D Shugborough	The Earl of Lichfield	5	1 0	260	30·1	26·28	155	104
D Stafford (Corporation Depot)	W. Plant, Esq., C.E.	5	1 6	249	27·2	26·23	151	114
Stafford (Stone Road)	L. Wilson, Esq.	5	0 8	265	..	25·14	..	..
D Eccleshall (Johnson Hall)	Major W. Moat	5	1 2	400	27·5	27·22	157	118
D Stone (Meece House)	Head Gardener	5	1 6	331	28·3	28·98	134	108
D Stone (Meaford Hall)	Lt.-Col. W. S. W. Parker Jervis, D.S.O.	5	0 10	325	29·9	32·09	174	133
D Standon (Hatton W.W.)	R. C. Frain, Esq., C.E.	5	1 0	355	29·0	30·48	169	133
D Whitmore, P. S.	L. M. & S. Rly.	5	1 0	385	..	27·89	149	115
D Basford (Sewage Works)	Thomas Dunn, Esq.	5	1 0	385	..	32·00	162	127

DIVISION VI.—WEST MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
STAFFORDSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—TRENT—Left Bank Tributaries. 193 sq. mi.								
D Burton Reservoir	F. J. Dixon, Esq., C.E.	5	1 0	309	25·1	24·20	133	96
D Burton (Shobnall)	Messrs. Bass & Co., Ltd.	5	1 0	157	24·6	22·40	153	99
D Burton (Borough Hospital)	Dr. J. M. Cowie	5	1 0½	220	..	(25·60)	166	110
D Stone (Alleyne's Grammar Sch.)	H. Malcolm Fraser, Esq.	5	1 6	415	29·4	29·05	165	116
D Stone (Idlerocks)	Mrs. Wedgwood	5	1 0	740	32·7	30·45	154	133
D Longton (The Meir)	R. C. Frain, Esq., C.E.	5	1 0	617	30·2	32·95	170	126
D Fenton (Sew. Works)	(A) W. H. Makepeace, Esq., C.E.	6	1 0	349	..	28·80	150	114
5.—TRENT—Dove. 250 sq. mi.								
D Rocester (Dove Leys)	Sir Percival Heywood, Bt.	5	1 0	350	33·5	33·52	159	126
D Oakamoor (Lightoaks)	M. A. Bolton, Esq.	5	1 6	650	..	35·23	175	123
D Ashbourne (Mayfield Hse.) (+A)	Graham C. Lawson, Esq.	8	1 0	374	32·3	32·68	167	118
D Ilam School	J. R. McKnight, Esq.	5	0 8	440	..	43·19	178	138
d Cheddleton (County Mental Hosp.)	Mrs. Menzies	5	1 0	550	..	37·14	161	131
D Alstonfield (The Manor)	B. R. S. Pemberton, Esq.	5	1 0	920	39·1	41·44	190	141
D Leek (Wall Grange P. Stn.)	R. C. Frain, Esq., C.E.	5	1 0	457	34·7	34·71	170	129
D Leek (Hillesdon)	A. Y. Worthington, Esq.	5	1 0	750	37·2	37·96	176	139
D Leek (Haregate Hall)	Mr. R. Sutton	5	0 9	680	36·9	38·54	181	134
M Leek (Swains Moor)	W. E. Beacham, Esq.	5	1 1	993	..	43·97	..	..
M Leek (Withens, Upper Hulme)	W. E. Beacham, Esq.	5	1 1	1084	..	41·53	..	..
WORCESTERSHIRE. (Area, 751 sq. mi.)								
1.—SEVERN—Right Bank Tributaries. 231 sq. mi.								
D Redmarley (Haselden)	Miss F. L. Newbury	5	0 5	280	25·3	30·78	143	110
D Upton-on-Severn (Willow Bank)	J. Selwyn Cowley, Esq.	5	1 0	43	26·0	28·83	156	102
D Upton-on-Severn (The Eades)	Roger D. Tennant, Esq.	5	0 9	100	26·9	26·83	161	94
D Malvern (British Camp Res.)	W. Osborne Thorp, Esq., C.E.	5	1 0	667	28·5	26·57	127	95
D Malvern (Barnard's Green)	W. Osborne Thorp, Esq., C.E.	5	1 0	130	..	28·67	107	96
D §Malvern (Belle Vue House)	A. Mander, Esq.	5	4 0	520	29·4	31·14	147	105
D Malvern (Free Library)	W. Osborne Thorp, Esq., C.E.	5	1 0	380	27·6	30·82	143	99
D Malvern (Clarence Road)	S. Bottomley, Esq.	5	1 0	300	27·7	29·08	160	105
d Malvern (St. James' Road)	Rev. F. H. Fowler	5	1 0	300	..	(30·33)	..	..
D Malvern (Hornyold Road)	Rev. T. Wolseley Lewis	5	1 0	492	28·3	29·94	146	104
D West Malvern	W. Osborne Thorp, Esq., C.E.	5	1 0	832	28·9	28·83	125	102
D Knightwick Sanatorium	Dr. H. Gordon-Smith	5	1 0	300	25·9	28·39	144	104
D Worcester (Diglis Lock)	J. E. Bradley, Esq.	5	1 0	49	24·7	25·77	136	96
D Martley Rectory	Rev. J. F. Hastings	5	1 0	220	26·7	27·82	158	111
D Ombersley (Holt Lock)	J. E. Bradley, Esq.	5	1 1	55	25·3	25·68	142	100
D Stanford Rectory	Rev. J. B. Hewitt	5	1 1	360	28·4	29·97	123	104
D Stourport (Astley Town)	J. Armytage Batley, Esq.	5	0 11	175	25·5	25·39	145	99
D Tenbury (Belle Vue)	F. Lowe, Esq.	5	1 0	313	26·3	28·43	137	97
D Rochford Rectory	Rev. Allan Ellison	5	1 0	315	27·7	30·32	151	108
D Stockton-on-Teme (Eardiston)	Miss M. Wallace	5	1 0	200	26·7	22·41	138	100
D Bewdley (Winterdyne)	Miss K. M. Sturt	5	1 0	175	25·9	27·18	162	103
2.—SEVERN—Left Bank Tributaries 194 sq. mi.								
D Earl's Croome (Levant Lodge)	F. W. Burnett, Esq.	5	2 0	110	26·3	26·72	130	100
d Kempsey (Napleton Ho.)	Major H. Berkeley Hill	5	1 3	100	26·9	24·92	..	..
D Kempsey Vicarage	Rev. E. B. R. de Jersey	5	0 9	50	..	27·51	139	100
D Worcester (London Road)	Mrs. Manley Power	5	1 0	150	25·2	27·96	148	110
D Worcester (Waterworks)	W. Ransom, Esq., C.E.	5	1 0	52	23·2	26·54	143	104
D Worcester (Perdiswell)	The Agricultural Organiser	5	1 0	95	..	25·33	124	96
D Worcester (Bevere Lock)	J. E. Bradley, Esq.	5	1 1	52	24·5	26·76	134	102
D Droitwich (Friar Street Depot)	Chas. T. Butler, Esq. C.E.	12	4 0	98	25·4	28·18	133	107
D Bromsgrove (Tardebigge Res.) *old g*	A. J. Cullis, Esq., C.E.	5	4 6	455	27·5	28·62	164	110
D Bromsgrove (Tardebigge Res.) *new g*	A. J. Cullis, Esq., C.E.	5	1 0	455	..	28·97	167	115
D Bromsgrove (Burcot P. S.)	R. S. Broadley, Esq.	5	1 0	432	..	28·01	124	98
D Barnt Green (Upwood)	Miss M. Gibbins	5	1 0	650	..	29·71	159	107
d Stourport (Lincombe Lock)	J. E. Bradley, Esq.	5	1 0	62	25·6	25·73	..	113
D Bewdley (C.E. School)	J. Bates, Esq.	9	1 0	70	26·4	27·07	135	99

§ Exposure not orthodox.

DIVISION VI.—WEST MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with .01 in. or more.	Days with .04 in. or more.
WORCESTERSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—SEVERN—Left Bank Tributaries—(*con.*).								
D Kidderminster (Pumping Stn.)	J. T. Cowderoy, Esq.	5	1 0	103	..	25·36	140	100
D Kidderminster (Park Hall)	K. H. Wilson, Esq.	5	1 0	200	25·7	26·61	137	103
D Bewdley (Elan Aqueduct)	J. W. Wilkinson, Esq., C.E.	5	1 0	91	26·7	28·40	161	109
D Clent Hall	Miss H. M. Wilson	5	1 0	580	..	28·62	121	106
D Halesowen (Romsley)	F. J. Dixon, Esq., C.E.	5	1 0	614	30·6	30·62	156	107
D West Hagley (Glenthorpe)	W. Nock, Esq.	5	1 0	400	28·1	28·96	152	109
D Pedmore (The Dene)	T. Grazebrook, Esq.	5	0 9	340	26·5	28·39	153	118
D Stourbridge (Pumping Station)	G. P. Deeley, Esq.	8	1 0	212	27·1	28·82	150	104
D Netherton (Lodge Farm Res.)	Col. H. K. S. Woodhouse, C.E.	5	1 0	445	..	24·97	156	110
d Dudley (Borough Cemetery)	F. H. Gibbons, Esq., C.E.	5	1 3	591	..	25·06	..	..
3.—SEVERN—Upper Avon. 260 sq. mi.								
D Blockley	Miss E. M. Richardson	5	1 0	500	..	29·93	141	110
D Bredon (The Croft)	Jasper Lambert, Esq.	5	1 1	120	24·5	26·02	147	107
D Defford (Upper St.)	A. W. Butler, Esq.	5	1 6	107	24·0	23·99	137	105
D Evesham (Bengeworth)	Messrs. Ross Bros., Ltd.	5	1 0	128	22·9	24·69	134	107
d Evesham (Lansdowne)	Miss E. M. Burlingham	5	1 0	108	23·4	26·19	127	104
D Evesham (Sewage Works)	J. Abbott, Esq., C.E.	5	1 9	85	22·6	23·76	121	103
D Evesham (Worcester Rd.)	H. B. Pollard, Esq.	5	1 0	..	22·6	24·15	130	100
D Tredington	N. H. Walton, Esq.	5	1 0	200	..	26·04	143	102
D Pershore (Southern House)	G. E. Lawson, Esq.	5	2 3	70	22·2	23·92	144	101
d Evesham (Sheriff's Lench)	Dr. G. E. Harthan	5	1 0	350	..	24·11	..	..
Alcester (Cookhill Co. School)	T. Barber, Esq.	5	1 0	400	24·5	23·94	142	..
D Redditch (Hewell Gardens)	Mr. F. Molyneux	5	1 0	469	27·7	29·83	141	119
D Alvechurch (Bordesley Hall)	A. H. Wiggin, Esq.	12	4 0	490	28·5	29·16	140	113
D Alvechurch (Fairfield)	D. McMichael, Esq., J.P.	5	1 0	400	29·4	30·16	139	118
D Bromsgrove (Lower Bittal Res.) *old g*	A. J. Cullis, Esq., C.E.	5	3 0	457	..	28·47	171	126
D Bromsgrove (Lower Bittal Res.) *new g*	A. J. Cullis, Esq., C.E.	5	1 0	457	..	29·52	161	126
4.—THAMES—Windrush & c. 10 sq. mi.								
5.—TRENT—Right Bank Tributaries. 56 sq. mi.								
D Halesowen (Frankley)	J. W. Wilkinson, Esq., C.E.	5	0 10	570	30·7	31·87	155	108
D Northfield (Frankley Lodge Rd.)	A. A. Barnes, Esq., C.E.	5	1 0	548	..	33·18	170	106
D Oldbury (Barnford Hill Pk.)	W. Greenwood, Esq., C.E.	5	0 9	607	..	30·41	128	109
WARWICKSHIRE. (Area, 902 sq. mi.)								
1.—SEVERN—Upper Avon. 603 sq. mi.								
D Long Compton (Weston Park)	Mrs. H. A. Warriner	8	1 0	510	26·5	27·79	123	95
d Kineton (Kineton House)	J. Fielden, Esq., J.P.	5	1 6	250	..	23·81	..	96
D Stratford-on-Avon (Milcote)	F. W. Jones, Esq., C.E.	5	1 6	122	23·6	23·61	126	94
D Stratford-on-Avon (Avonfield)	G. W. Everard, Esq.	5	0 8	120	24·2	24·52	126	92
D Stratford-on-Avon (Shottery Hall)	R. C. Carter, Esq.	8	1 0	140	23·9	27·28?	143	103
Bidford (Moor Hall) (+A)	E. H. Cubberley, Esq.	5	1 0	125	24·0	21·78	..	..
D Temple Grafton Court	T. Lonsdale, Esq.	8	1 3	270	24·8	22·58	121	102
d Alcester (Ragley Hall)	Mr. C. Harding	5	1 0	270	25·8	24·87	..	104
Ashorne (Victoria Cottage)	G. T. Osborn, Esq.	5	1 0	160	24·7	22·34	..	..
D Stratford-on-Avon (Snitterfield)	F. W. Jones, Esq., C.E.	5	1 6	274	25·2	23·41	128	94
D Southam (Stockton House)	G. B. Blyth, Esq.	6	1 4	394	23·1	19·42	138	97
d Studley College	The Head Mistress	5	0 9	235	27·0	26·71	142	99
D Warwick Castle Gardens	Mr. H. F. Smale	5	1 0	197	25·3	24·74	134	100
Leamington (Radford House)	C. E. G. Hatherell, Esq.	5	1 2	240	24·9	22·62	125	100
D Leamington (Pump Room Gdns.)	Medical Officer of Health	8	1 0	165	24·0	23·04	135	100
D Leamington (Lillington Road)	Rev. J. I. Farr	5	1 3	228	..	25·69	129	106
Warwick (Great Pinley)	W. Nixon, Esq.	5	1 0	400	..	26·16	..	..
D Warwick (Haseley W. W.)	R. Wormell, Esq. C.E.	8	1 3	324	..	25·11	116	99
D Leek Wootton (The Lodge)	W. F. Mitchell, Esq.	5	1 0	249	..	26·99	156	110
Henley-in-Arden (Hillfield)	W. E. Milner, Esq.	5	1 0	450	25·9	24·93	..	..
D Dunchurch Lodge Gardens	Major H. S. Cayzer	5	1 0	380	24·4	24·27	120	102
D Stretton-on-Dunsmore (Manor Ho.)	Mrs. Lister-Kaye	5	1 0	280	..	24·37	125	105

DIVISION VI.—WEST MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
WARWICKSHIRE—(*con.*).		*in.*	*ft.* *in.*	*ft.*	*in.*	*in.*		
1.—SEVERN—Upper Avon—(*con.*).								
D **Rugby (Bilton Grange)**	Mr. J. S. Buckby	5	1 0	400	..	22·29	131	96
D Rugby (Caldecott)	J. R. Rossiter, Esq.	5	1 0	383	25·6	24·24	127	99
D **Ryton-on-Dunsmore(RytonHo.)**	Charles Browett, Esq.	5	1 2	260	26·0	27·44	126	107
D Coventry (Stoke)	(+A)W. R. Griffiths, Esq,	5	1 0	267	..	26·15	145	104
D **Coventry (City Hospital)**	E. H. Snell, Esq., M.D.	8	1 0	270	26·0	25·69	146	107
D **Coventry (Keresley Grange)**	Miss H. Rotherham	5	0 10	413	27·0	27·67	166	110
2.—THAMES—Windrush & c. 2 sq. mi.								
D Little Compton Manor	Mrs. Leverton Harris	5	1 0	450	..	30·13	147	106
3.—THAMES—Cherwell. 15 sq. mi.								
D **Farnborough**	Miss C. A. Prater	5	1 0	520	29·2	30·71	149	104
4.—TRENT—Right Bank Tributaries. 282 sq. mi.								
D Northfield (West Heath House)	J. B. Shewell, Esq.	5	1 0	590	29·3	28·26	150	108
D **Solihull (Marsh Cottage)**	Ivo L. Currall, Esq.	6	1 0	420	25·8	26·84	136	120
D Northfield (Bartley Res. No. 1)	A. A. Barnes, Esq., C.E.	5	1 0	600	..	32·33	166	105
D **Selly Oak (Bournville)**	Messrs. Cadbury Bros., Ltd.	5	1 0	469	29·1	30·20	161	109
d Selly Oak (Witherford Way)	Mrs. Neave	8	1 6	530	..	30·51	161	113
D Selly Oak (Frederick Rd.)	Mr. W. Garden	5	1 2	540	29·2	30·20	156	117
D **Birmingham (Sparkhill)**	D. H. Owen, Esq.	5	1 0	425	29·1	29·09	149	108
d Edgbaston (Farquhar Road)	J. C. Wilson, Esq.	5	0 8	500	..	30·19	..	..
D **Birmingham (Edgbaston)**	A. J. Kelley, Esq.	8	1 6	525	26·5	27·60	160	111
D Edgbaston (Clarendon Road)	H. Brenholz, Esq.	5	1 0	547	..	28·62	173	117
D **Birmingham (Carpenter Road)**	L. Ashby Bolton, Esq.	5	1 1	480	28·1	28·03	174	114
D Birmingham (Icknield Port)	Col.H.K.S.Woodhouse,C.E.	5	1 0	490	..	27·03	156	109
D Nuneaton (The Quarry)	Miss K. E. Smith	5	1 0	321	..	26·87	146	103
D **Ullesthorpe (High Cross)**	J. Parker Toone, Esq.	5	1 0	..	..	25·57	149	103
D Whitacre (Birmingham W.W.)	J. W. Wilkinson, Esq., C.E.	5	1 0	269	26·0	23·92	145	100
‡D Birmingham (Erdington)	J. W. Wilkinson, Esq., C.E.	5	1 2	472	..	22·05	138	98
D **Minworth Greaves**	Birmingham Drainage Bd.	8	1 0	259	24·3	22·12	152	103
D Nuneaton (Sewage P. Sta.) (R)	R. C. Moon, Esq., C.E.	8	0 9	281	..	21·84	134	95
D Nuneaton(HartshillSewageWks.)	R. C. Moon, Esq., C.E.	5	1 2	288	..	24·35	146	98
D **Sutton Coldfield (The Park)**	Mr. H. Harlond	5	1 0	370	26·4	24·91	136	102

DIVISION VII.—NORTH MIDLAND COUNTIES.

LEICESTERSHIRE. (Area, 824 sq. mi.)								
1.—SEVERN—Upper Avon. 41 sq. mi.								
D **Welford (The Reservoir)**	T. W. Millner, Esq.	5	1 6	430	..	23·82	158	103
d Lutterworth (Waterworks)	A. J. Ross, Esq.	8	1 9	414	..	22·78	..	98
2.—WELLAND. 96 sq. mi.								
D Market Harborough (Rose Hill)	G. O. Nicholson, Esq.	5	1 0	350	..	23·83	126	102
D **Kibworth Beauchamp**	Dr. E. V. Phillips	5	1 0	390	25·7	25·10	134	103
Hallaton (Horninghold House)	Mr. B. Inchley	5	1 6	380	..	22·04	..	..
d Knossington Rectory	Rev. G. G. Wilkinson	5	1 0	580	..	26·00	123	108
3.—WITHAM. 7 sq. mi.								
4.—TRENT—Right Bank Tributaries. 680 sq. mi.								
D Peatling Magna (Peatling Ho.)	Dr. C. Royds Jones	5	1 1	354	..	22·70	136	96
D Hinckley (Edward Street)	E. H. Salter, Esq.	5	1 0	425	..	24·34	144	98
D **Wistow Hall Gardens**	The Lord Cottesloe, C.B.	5	1 0	309	..	24·09	128	107
D Countesthorpe(WigstonSewFm.)	W. G. J. Clark, Esq., C.E.	8	0 9	257	..	23·21	157	103
D **Leicester (Stoughton Drive)**	Theodore B. Ellis, Esq.	5	1 0	315	..	23·58	141	104
D **Leicester (Town Hall Square)**(+A)	A. T. Gooseman, Esq., C.E.	5	1 0	212	..	23·35	137	97
D **Leicester City Mental Hosp.**	The Steward	8	1 0	266	..	25·52	157	103
D **Leicester (Gilroes Cemetery)**	A. T. Gooseman, Esq., C.E.	5	1 0	285	..	24·39	128	106
D **Leicester (Groby Road)**	Miss V. D. Ellis	5	1 0	244	..	26·89	145	96
D **Thornton Reservoir**	G. T. Edwards, Esq., C.E.	8	1 2	370	26·2	25·86	131	109
D **Cropstone (Bradgate Res.)**	G. T. Edwards, Esq., C.E.	8	1 0	245	..	28·35	144	121
D **Barkby Hall**	Victor R. Pochin, Esq.	5	1 0	227	26·3	24·30	139	102

‡ Gauge over-exposed.

DIVISION VII.—NORTH MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
LEICESTERSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—TRENT—Right Bank Tributaries—(*con.*).								
D **Swithland (The Brand)**	G. T. Edwards, Esq., C.E..	8	1 0	171	..	25·45	142	106
D **New Packington**	G. C. Wooldridge, Esq.	5	1 0	440	..	25·10	163	106
Packington Vicarage	Rev. C. C. Pratt	5	1 0	360	..	(26·54)	..	..
D **Barrow-upon-Soar (The Mount)**	Mrs. C. Stuart Thomson ..	5	1 6	..	..	22·21	124	102
D **Charnwood Forest (Charley Hall)**	Mrs. J. B. Martin	5	0 9	450	..	27·66	126	107
D **Hoby (The Grange)**	A. A. Ironside, Esq.	5	1 0	235	..	21·30	134	105
D **Asfordby Rectory**	Rev. W. R. Finch	5	0 10	212	..	20·79	189	110
D **Asfordby Hill (Ironworks)**	Stanton Ironworks Co., Ltd.	5	1 1	300	..	21·82	137	102
D **Melton Mowbray (White Lodge)**	H. K. Barker, Esq.	8	1 6	237	..	22·55	169	107
D **Charnwood For. (Blackbrook R.)**	W. Granger, Esq., C.E.	5	1 0	379	..	25·97	132	110
D **Loughborough (Park Road)**	W. Llewellyn Mold, Esq.	5	1 0	190	..	22·98	147	105
D **Loughborough (NanPantan Res.)**	W. Granger, Esq., C.E.	5	1 0	269	..	25·32	140	100
D **Loughborough (The Widenings)**	Adrian Young, Esq.	5	1 0	197	..	23·92	157	106
d **Loughborough (Sewage Farm)**	W. Granger, Esq., C.E.	8	1 0	135	..	22·69	..	..
D **Prestwold Hall**	Mr. W. Coe	8	1 0	209	..	28·85?	146	110
D **Belvoir Castle Gardens**	The Duke of Rutland, K.G.	8	1 0	259	25·1	20·58	122	104
RUTLAND. (Area, 152 sq. mi.)								
1.—WELLAND. 125 sq. mi.								
D Uppingham (Ridlington)	C. Wortley, Esq.	5	4 7	527	..	24·06	140	110
d Hambleton Manor	Major J. Orr-Ewing, M.C..	5	1 0	400	..	27·40	..	99
2.—WITHAM. 5 sq. mi.								
3.—TRENT—Right Bank Tributaries. 22 sq. mi.								
LINCOLNSHIRE. (Area, 2646 sq. mi.)								
1.—NENE. 100 sq. mi.								
d **Tydd (North Level Sluice)**	Mr. S. Fovargue	5	1 0	10	..	21·24	120	..
2.—WELLAND. 341 sq. mi.								
D **Market Deeping (Wilsthorpe)**	W. H. A. Court, Esq., C.E.	8	1 0	51	..	17·07	139	97
D **Holywell Hall**	late Lt.-Col. A.A.H.Reynardson	8	0 9	137	..	22·67	145	111
D **Spalding (Pode Hole)**	H. Bain, Esq.	8	1 3	12	23·5	20·90	176	104
D Bourne (Guthram)	F. Sanderson Robins, Esq., C.E.	8	1 6	19	..	20·86	125	95
D **Spalding (Spalding Marsh)**	Messrs. Seymour Cobley, Ltd.	5	1 0	16	..	18·22	127	91
3.—WITHAM & C. 1085 sq. mi.								
D **Stainby Rectory**	Rev. W. L. de B. Thorold..	4	0 9	496	25·5	22·55	121	103
D **Denton Manor**	Sir C. G. E. Welby, Bt., C.B.	5	1 0	310	..	22·33	167	115
D **Grantham (Saltersford)**	H. Preston, Esq.	5	0 6	188	..	19·06	155	102
D **Heydour Vicarage**	Rev. S. S. Herington	5	0 11	263	..	22·14	156	119
d Culverthorpe	E. H. Davies, Esq.	5	1 2	200	..	18·97	..	..
D Fishtoft School	W. Rimington, Esq.	5	1 0	0	..	20·75	124	89
D **Boston (Black Sluice, Skirbeck)**	F. S. Robins, Esq., C.E. ..	8	1 3	11	22·8	20·08	156	101
D **Boston (Grand Sluice)**	J. H. Johnson, Esq., C.E...	8	8 0	18	23·2	18·67	159	103
D **Boston (Bargate End)**	A. O. Scrivener, Esq.	8	1 4	9	..	18·83	148	97
D **Sleaford (Kesteven Mental Hos.)**	Dr. J. R. Macphail	5	1 0	100	..	19·68	157	107
D **Cranwell Aerodrome**	(+A) The Meteorological Office..	8	1 0	241	23·2	19·73	152	98
D **Anwick Vicarage**	Basil W. Lee, Esq.	5	1 0	37	..	18·81	146	101
D **New Leake (Lade Bank Engine)**	J. H. Johnson, Esq., C.E...	5	1 0	10	23·2	18·19	122	101
D **Carrington Grange**	T. J. Ward, Esq.	5	6 0	15	..	19·01	126	102
D **Wellingore**	Rev. Canon H. Powell Smith	5	1 0	246	..	18·46	155	97
D **Navenby Rectory**	J. Thompson, Esq.	5	1 0	218	24·9	20·29	143	109
D **Carlton-le-Moorland**	J. Brocklebank, Esq.	5	1 2	50	..	19·65	135	102
D Blankney Hall Gardens	Mr. N. G. Cleaver	5	0 9	57	..	20·34	149	105
D **East Kirkby (E. Kirkby House)**	Capt. R. S. Fieldsend	5	1 0	90	..	19·93	157	115
D **Revesby Reservoir**	T. H. Tyson, Esq.	5	2 0	124	24·5	20·88	137	102
Kirkby-on-Bain	Lt.-Col. J. D. Gibbes	5	1 0	50	..	20·49	..	..
D **Woodhall Spa (Galen House)**	J. Collins, Esq.	5	1 0	38	..	19·12	163	99
D Woodhall Spa	J. Collins, Esq.	5	1 0	40	..	19·63	154	100

DIVISION VII.—NORTH MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
LINCOLNSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
3.—WITHAM & C.—(*con.*).								
D Horncastle	J. R. Mackavoy, Esq.	5	1 0	120	..	21·31	162	98
D Lincoln (Swallowbeck)	W. R. Pennell, Esq.	8	1 0	34	..	19·80	153	93
Lincoln (Skel ingthorpe Hall)	A.H.Bergne-Coupland, Esq.	5	1 0	40	23·1	19·64	..	96
D Hackthorn Hall	E. W. Cracroft, Esq.	5	4 8	102	..	20·74	150	100
Springthorpe Rectory	Rev. B. Davies	5	1 0	75	..	21·46	127	102
4.—GREAT EAU & C. 443 sq. mi.								
D Skegness (Marine Gardens)	F. A. Jenkins, Esq.	8	1 0	12	23·3	17·65	141	91
D East Keal Rectory	Rev. R. H. Simpson	5	1 0	180	..	17·16	152	102
D Spilsby	J. E. Bolt, Esq.	5	1 4	124	..	20·12	143	110
D Hagworthingham (Glebe House)	Mr. R. Wright	5	1 0	240	..	20·56	147	109
D Mablethorpe (Trusthorpe Hall)	I. N. Woodiwiss, Esq.	8	1 3	10	..	19·64	149	104
D Louth (Westgate)	Rev. W. E. Yates	5	0 9	120	28·0	20·77	151	101
D Binbrook (West House)	Mrs. C. Fieldsend	5	1 2	309	..	(25·80)	142	107
D Wold Newton Manor	W. Maurice Wright, Esq.	5	1 6	230	..	20·15	159	112
D Grainsby Hall	Mr. J. Butters	5	1 0	75	..	21·78	172	118
5.—HUMBER—Right Bank Tributaries. 428 sq. mi.								
D North Willingham House	Mrs. Charles Wright	5	3 0	125	..	24·68	193	129
d Brigg (Thornholme)	E. I. Brown, Esq.	5	1 5	22	..	21·79	..	104
D Brigg (Wrawby Road)	A. R. Haynes, Esq.	5	1 1	22	..	22·08	144	107
D Cleethorpes (Kings Parade)	Urban District Council.	5	1 0	23	..	20·34	141	104
D Grimsby (Abbey Road)	W. J. Wood, Esq., C.E.	5	2 6	25	..	20·47	140	104
D Grimbsy (Westlands)	Major G. L. Bennett.	5	1 0	23	..	18·84	132	104
D Brocklesby Park	Mr. J. Chisholm.	5	1 0	90	..	22·04	144	102
D Ulceby (Wootton Lodge)	Mr. F. W. Prentice	5	1 5	100	..	22·15	141	103
D Scunthorpe (Normanby)	A. G. Wilkes, Esq.	5	1 0	185	..	22·02	148	107
D Horkstow	E. J. Turton, Esq.	5	1 0	75	..	23·33	142	117
D Ferriby Sluice	F. Straw, Esq.	5	1 0	18	..	21·44	152	110
6.—TRENT—Right Bank Tributaries. 172 sq. mi.								
D Swinderby (Ling Moor)	C. H. Wray, Esq.	5	1 0	50	..	23·23	141	126
d Woolsthorpe	L. and N.E. Rly.	5	1 3	182	..	20·55	..	100
D Torksey	Miss M. Burtt	5	1 0	18	..	19·86	135	91
d Gate Burton Hall	The Hon. Mrs. Sandars	5	1 0	97	..	20·53	..	102
D Messingham School	W. E. Ramsden, Esq.	5	0 9	115	..	18·61	137	102
7.—TRENT—Left Bank Tributaries. 77 sq. mi.								
D Wroot (S. Level Pump Station)	Mr. A. J. Trafford	10	2 0	8	..	18·85	144	97
d Crowle (N. Level Pump Station)	Mr. H. G. Trafford	5	2 0	10	22·6	20·08	..	102
NOTTINGHAMSHIRE. (Area, 843 sq. mi.)								
1.—WITHAM. 10 sq. mi.								
2.—TRENT—Right Bank Tributaries. 218 sq. mi.								
D Sutton Bonington Agric. Coll. (+A)	The Principal	5	1 0	158	21·7	20·71	130	89
d Costock School	The Headmistress	5	1 0	169	25·2	22·41	..	..
D Plumtree (Normanton-on-Wolds)	T. A. Hill, Esq.	8	2 0	170	24·0	23·16	150	105
D Ruddington (Westlands)	J. D. Walker, Esq.	5	1 0	100	24·3	21·81	142	95
D Nottingham (Wilford Hill Res.)	F. W. Davies, Esq., C.E.	8	1 0	295	23·1	21·87	156	100
D East Bridgford	G. W. Beaumont, Esq.	5	1 0	100	..	20·67	151	107
D Newark	J. H. Clarke, Esq., C.E.	5	0 9	43	23·4	20·39	182	108
3.—TRENT—Derwent. 2 sq. mi.								

DIVISION VII.—NORTH MIDLAND COUNTIES—(*con.*).

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NOTTINGHAMSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—TRENT—Erewash. 42 sq. mi.								
D Nottingham (Strelley)	Major T. L. K. Edge	8	1 0	386	26·2	23·78	163	107
Nottingham (Strelley Hall) *old g*	Major T. L. K. Edge	5	1 0	377	25·5	23·05	..	..
D Nottingham (Strelley Hall) *new g*	Major T. L. K. Edge	5	1 0	376	..	23·55	154	110
D Bulwell (Watnall Reservoir)	F. W. Davies, Esq., C.E.	8	1 0	471	29·0	27·23	151	106
D Eastwood Waterworks	F. W. Davies, Esq., C.E.	8	1 2	243	25·9	25·63	158	108
d Eastwood Hall	Messrs. Barber, Walker & Co., Ltd.	5	1 0	218	..	25·34	(142)	(110)
D Eastwood (Moorgreen Res.)	L. and N. E. Rly. Co.	5	1 0	301	27·4	26·26	156	106
D Annesley (Selston W.W.)	S. Maylan, Esq.	5	1 0	475	26·2	24·00	142	94
5.—TRENT—Left Bank Tributaries. 569 sq. mi.								
D Attenborough	R. F. T. Granger, Esq.	8	1 0	885	..	22·36	145	100
D Beeston (Council Depot)	E. A. Bush, Esq.	5	1 0	121	24·5	23·43	143	104
D Nottingham (Trent Lane) (+A.)	T. Wallis Gordon, Esq., C.E.	8	1 0	83	22·5	21·01	146	103
D Nottingham (The Castle)	T. Wallis Gordon, Esq., C.E.	8	1 0	192	23·6	21·02	136	90
D Nottingham (Colwick Hill Res.)	F. W. Davies, Esq.	8	1 0	314	..	19·72	147	97
D Nottingham (Burford Road)	A. B. Tinn, Esq.	5	1 0	170	25·3	23·28	159	109
D Nottingham (Stoke Bardolph)	T. Wallis Gordon, Esq., C.E.	8	1 0	66	22·6	20·89	164	109
D Nottingham (Mapperley Hill)	Dr. G. L. Brunton	8	1 0	400	24·9	23·65	147	114
D Bagthorpe (Isolation Hospital)	late P. Boobbyer, Esq., M.D.	8	1 0	190	25·3	24·07	179	111
D Nottingham (Basford W.W.)	F. W. Davies, Esq., C.E.	8	1 0	168	24·3	22·86	142	100
D Burton Joyce Waterworks	F. W. Davies, Esq., C.E.	8	1 0	65	25·2	20·74	145	102
D Bulcote (Corporation Farm)	T. Wallis Gordon, Esq., C.E.	10	1 3	65	23·6	21·24	157	98
Lowdham (Chilwell Nurseries)	J. D. Pearson, Esq.	5	1 5	90	21·4	19·63	..	..
D Bulwell (Bestwood W.W.)	F. W. Davies, Esq., C.E.	8	1 2	315	25·7	22·37	158	103
D Daybrook (Red Hill Reservoir)	F. W. Davies, Esq., C.E.	8	1 0	404	26·8	22·74	182	104
D Daybrook (Ramsdale Hill Res.)	F. W. Davies, Esq., C.E.	8	1 0	504	28·1	23·19	187	110
D Bulwell Hall Park	T. Wallis Gordon, Esq., C.E.	8	1 0	252	27·3	24·76	148	108
D Papplewick (Waterworks)	F. W. Davies, Esq., C.E.	8	1 0	316	27·0	24·45	145	109
D Southwell (The Residence)	Vn. Acdn. W. J. Conybeare	5	1 0	100	24·7	20·57	146	101
D Southwell (Elmfield)	Miss S. Gale	5	1 0	137	24·9	20·74	153	102
D Sutton-in-Ashfield (Rushley P.S.)	Messrs. G. & F. W. Hodson	5	1 0	462	27·1	25·99	120	107
D Sutton-in-Ashfield (Sew. Wks.)	F. J. Grierson, Esq.	5	1 0	453	28·9	27·22	155	114
D Mansfield (Rainworth W.W.)	J. Gibson, Esq., C.E.	5	1 0	360	27·5	23·71	126	103
D Mansfield (Carr Bank)	Borough Surveyor	8	0 10	357	..	25·94	153	107
D Mansfield (West Bank)	W. Pickard, Esq.	8	1 0	405	27·6	26·96	174	112
D Mansfield (Debdale Hall)	Francis N. Ellis, Esq.	5	1 6	400	28·1	26·99	126	105
D Clipstone Waterworks	J. Gibson, Esq., C.E.	5	1 0	225	25·9	23·89	146	107
D Ollerton (Boughton W.W.)	F. W. Davies, Esq., C.E.	8	1 0	140	25·7	20·79	159	101
d Ollerton (Thoresby Gardens)	Mr. A. J. Simmons	5	1 0	125	26·6	21·24	..	91
D Welbeck Abbey	Mr. Chas. Harris	8	0 10	196	..	23·35	170	105
D Clumber Gardens	A. E. Elliott, Esq.	5	1 0	164	..	25·20	160	121
D Elkesley Pumping Station	C. Horobin, Esq., C.E.	5	1 0	120	24·0	20·66	138	96
D Worksop (Osberton Gardens)	Mr. A. Nicholson	5	3 6	70	23·8	18·55	138	115
D Retford (Morton Hall)	W. H. Mason, Esq.	9	1 0	140	23·7	20·63	149	99
D Retford (Sewage Disposal Wks.)	R. E. Wilson, Esq.	5	1 0	74	..	21·54	168	104
D Retford (Babworth Hall)	Major J. A. C. Whitaker	5	1 0	98	22·9	19·36	132	91
D Worksop (Wigthorpe Hill)	R. C. P. Ramsden, Esq.	5	1 0	100	24·1	21·21	156	103
D Worksop (Hodsock Priory) (+A)	Miss E. Mellish	8	1 0	56	23·6	20·66	164	98
D Scrooby	Mr. J. Mallender	5	1 0	40	23·1	21·48	159	97
D Bawtry Hall (The Gardens)	Mr. F. E. Hogbin	5	1 0	31	23·1	22·18	141	96
6.—OUSE—Don. 2 sq. mi.								
DERBYSHIRE. (Area, 1029 sq. mi.)								
1.—MERSEY, UPPER. 93 sq. mi.								
D Glossop W.W. (Swineshaw)	Geo. Faulds, Esq., C.E.	12	1 0	733	..	41·89	189	152
2.—MERSEY—Weaver. 2 sq. mi.								
3.—TRENT—Right Bank Tributaries. 68 sq. mi.								
D Melbourne Vicarage	Rev. E. T. Harcombe	10	1 0	180	..	25·51	136	112
D Repton (The Croft)	H. C. Hayward, Esq.	5	1 6	170	..	24·90	162	105
D Stanton-by-Bridge W.W.	H. Raven, Esq., C.E.	8	1 2	144	..	24·33	144	104

DIVISION VII.—NORTH MIDLAND COUNTIES—(*con.*).

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DERBYSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—TRENT—Dove. 156 sq. mi.								
D Rodsley Pumping Station	Edwin Wright, Esq.	5	1 0	405	..	(30·45)	170	118
D Ashbourne (The Mansion)	R. E. Sadler, Esq.	5	1 0	404	..	35·01	158	127
D Ashbourne Vicarage	Rev. Canon F. L. Shaw	5	1 0	500	..	34·39	171	124
5.—TRENT—Left Bank Tributaries. 84 sq. mi.								
D Etwall (Blakeley Lodge)	G. Edge Laban, Esq.	5	1 0	190	..	24·48	126	106
D Etwall (Sewage Farm)	Mr. B. Hydes	5	1 8	201	..	24·60	125	110
D Etwall Hall	Col. M. Dawson	5	1 3	235	..	23·87	141	104
D Mickleover (C. Mental Hospital)	G. V. Bartlett, Esq., M.D.	5	1 0	300	..	25·58	120	108
Littleover (The Knoll)	W. Blews Robotham, Esq.	5	1 0	300	..	24·31	162	111
D Littleover (Hilltop)	E. McInnes, Esq.	5	1 0	346	..	25·77	156	121
6.—TRENT—Derwent. 428 sq. mi.								
D Spondon (Derby Sewage Wks.)	E. H. Bennett, Esq., C.E.	5	1 3	135	..	24·18	157	109
D Spondon Hall	Sir H. Fowler, K.B.E., LL.D.	5	1 0	230	..	25·63	164	111
D Derby (Wild Street)	Messrs. J. Davis & Son, Ltd.	5	1 0	174	..	24·64	156	110
D Derby (L. M. & S. Railway)	A. F. Bound, Esq.	5	1 0	156	25·1	22·38	142	103
D Derby (Royal Infirmary)	W. Banks, Esq.	5	1 0	190	..	25·55	147	117
D Derby (The Arboretum)	E. H. Bennett, Esq., C.E.	8	1 0	196	..	24·94	151	111
Kirk Langley (Langley Hall)	G. W. Peach, Esq.	5	1 5	396	28·9	27·84	162	114
D Duffield (The Kirkstyles)	Messrs. J. Davis & Son, Ltd.	5	2 0	235	27·5	27·76	161	113
D Belper (Herbert Strutt School)	The Principal	5	0 8	222	30·0	27·25	141	115
D Belper (Quarry Bank)	J. Hunter, Esq., C.E.	5	0 10	280	29·7	27·62	157	121
D Ambergate Reservoir	No. 61 S. B. Winser, Esq., C.E.	5	1 0	700	..	27·27	134	109
d Wirksworth	H. S. Tebbitt, Esq., C.E.	5	1 0	550	..	(35·73)	..	..
D Whatstandwell (Meerbrk. Sough)	Messrs. G. & F. W. Hodson	5	1 0	246	..	33·15	155	115
D Brackenfield (Lindway Res.)	R. F. Ward, Esq., C.E.	5	1 0	595	..	31·72	134	110
D Matlock Bath (Lower Tower)	Miss E. Chadwick	5	1 1	500	35·9	34·41	153	113
D Matlock (Rockside Hydro.)	J. H. Goodwin, Esq.	5	1 0	637	..	32·02	164	118
Matlock (Cross Green)	J. T. Trickett, Esq.	5	1 0	..	..	37·36	..	..
D Darley Dale (Whitworth Inst.)	E. Evans, Esq.	5	1 0	361	..	33·40	137	115
D DarleyDale (Stancliffe Hall) (R)	Maj. T. Bedford Franklin	8	1 0	560	..	35·16	148	120
D Clay Cross (Press Reservoirs)	Gilbert Frith, Esq., C.E.	8	1 0	810	..	28·31	145	111
w Buxton (Hurdlow Top)	L. M. & S. Rly.	8	1 10	1267	..	49·34	..	..
D Chatsworth Gardens	Mr. J. G. Weston	5	1 0	436	34·7	29·58	157	117
D Baslow (Over End)	A. E. Payne, Esq.	5	1 0	500	..	31·24	162	119
D Buxton (Portobello Bar)	F. Langley, Esq., C.E.	8	1 0	1600	59·7	62·72	197	155
D Buxton (Stanley Moor)	F. Langley, Esq., C.E.	8	1 0	1340	56·1	60·31	197	155
D Buxton (Burbage Edge)	F. Langley, Esq., C.E.	8	1 0	1400	56·8	57·98	197	155
D Buxton (Devonshire Hospital)	Miss E. W. Pilkington	8	1 0	1007	48·4	47·06	185	145
D Buxton (Lightwood)	F. Langley, Esq., C.E.	8	0 11	1191	..	48·87	174	152
D Bamford (Engineer's Office)	60 S. B. Winser, Esq., C.E.	8	2 1	510	38·6	37·96	198	138
D Bamford Filters	No. 70A S. B. Winser, Esq., C.E.	8	1 0	656	38·5	37·24	193	139
w Froggatt Edge (Stoke Flat)	J. G. Bown, Esq.	5	1 0	960	..	34·34	..	..
D Holmesfield (Barbrook Res.)	Gilbert Frith, Esq., C.E.	8	1 0	1080	..	34·28	169	139
D Hope (Cement Works)	Messrs. S. & T. Earle, Ltd.	5	1 2	580	..	40·74	166	132
D Hope (Killhill Bridge)	No. 56 D. W. Chadwick, Esq.	5	1 0	500	..	40·60	179	137
d Bamford (Yorkshire Br. Weir)	59 S. B. Winser, Esq., C.E.	5	1 0	540	..	37·27	..	..
D Derwent Vicarage	No. 67 S. B. Winser, Esq., C.E.	8	1 0	675	44·6	41·91	190	153
M Derwent (Lockerbrook Plant.)	68 S. B. Winser, Esq., C.E.	5	1 0	782	48·5	45·46	..	..
D Derwent Dam	No. 26 S. B. Winser, Esq., C.E.	8	1 0	790	42·4	42·61	194	145
M WoodlandDale (Woodlands, N)	47 S. B. Winser, Esq., C.E.	5	1 0	1063	..	44·51	..	..
M Hayfield (Ashop Head)	No. 43 S. B. Winser, Esq., C.E.	5	1 0	1650	46·2	46·70	..	..
M Derwent Dale (Shire Owlers)	69 S. B. Winser, Esq., C.E.	5	1 0	825	42·7	40·14	..	..
D DerwentDale (Birchinlee)	No. 23 S. B. Winser, Esq., C.E.	8	1 0	870	49·9	51·14	224	153
M Westend Bridge	No. 66 S. B. Winser, Esq., C.E.	5	1 0	878	50·0	53·70	..	..
M Lady Clough Moor	No. 41 S. B. Winser, Esq., C.E.	5	1 0	1720	46·8	46·30	..	..
M Lady Clough Moor	No. 41A S. B. Winser, Esq., C.E.	5	1 0	1720	..	51·30	..	..
M Coldharbour Moor (Summit)	39 S. B. Winser, Esq., C.E.	5	1 0	1670	47·5	44·90	..	..
D Derwent Dale (Howden Dam)	17 S. B. Winser, Esq., C.E.	8	1 0	829	47·9	47·81	224	153
M Derwent Dale (RidgeFarm)	13A S. B. Winser, Esq., C.E.	8	1 0	875	42·0	52·69	..	..
M Alport Moor (Glethering Cl.)	40 S. B. Winser, Esq., C.E.	5	1 0	1640	46·7	50·37	..	..

DIVISION VII.—NORTH MIDLAND COUNTIES—(*con.*).

	STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
	DERBYSHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	6.—TRENT—(*con.*)								
M	AlportMoor(Glethering Cl.) 40A.	S. B. Winser, Esq., C.E....	5	1 0	1640	..	51·99	..	..
M	WestendMoor(BlacklowCote)15	S. B. Winser, Esq., C.E....	5	1 0	970	51·5	51·24	..	..
M	Westend Moor .....No. 10	S. B. Winser, Esq., C.E....	5	1 0	1560	47·1	50·16	..	..
M	Alport Moor .....No. 38	S. B. Winser, Esq., C.E....	5	1 0	1790	47·0	46·50	..	..
M	Alport Moor .....No. 38A.	S. B. Winser, Esq., C.E....	5	1 0	1790	..	49·60	..	..
M	DerwentDale(SlipperyStones)62	S. B. Winser, Esq., C.E....	5	1 0	908	49·3	48·70	..	..
M	Ridgewalk Moor .....No. 9	S. B. Winser, Esq., C.E....	5	1 0	1650	47·5	50·10	..	..
M	Broadhead Clough .....No. 63	S. B. Winser, Esq., C.E....	5	1 0	1005	53·3	51·80	..	..
	7.—TRENT—Erewash. 50 sq. mi.								
D	Long Eaton (The Hall)	.....H. Raven, Esq., C.E.	8	0 10	105	..	22·17	148	97
d	Ilkeston (New Stanton)	.....Stanton Ironworks Co., Ld.	5	1 0	150	..	(24·99)	..	..
D	Heanor (Sharplow)	.....J. R. Groom, Esq.....	5	1 0	240	..	28·03	160	114
D	Codnor (Cross Hill)	.....A. F. Pine, Esq.	5	1 0	394	27·5	26·27	155	115
D	Codnor Park	.....L. M. & S. Rly. Co.....	5	1 0	243	29·3	27·90	182	117
	8.—OUSE—Don. 148 sq. mi.								
D	Chesterfield (Walton San.)	....Dr. A. Niven Robertson ..	5	1 0	450	..	28·30	146	105
D	Chesterfield (Linacre Res.)	....Chesterfield Water Board .	8	1 0	430	33·4	31·60	174	128
D	Chesterfield (Linacre Res.)	....Chesterfield Water Board .	5	1 0	475	31·6	31·20	173	130
d	Chesterfield (Sewage Works)	...S. Thornhill, Esq.....	5	1 0	223	..	24·93	147	..
D	Totley Hall	.....W. A. Milner, Esq.	5	1 0	700	37·3	36·10	176	140

DIVISION VIII.--NORTH-WESTERN COUNTIES.

CHESHIRE. (Area, 1,027 sq. mi.)

1.—MERSEY, UPPER. 200 sq. mi.

D	Langley (Bottoms Res.)	.....E. Hamson, Esq., C.E.....	5	1 0	664	38·5	43·56	170	145
D	Macclesfield (Leadbeaters Res.)	E. Hamson, Esq., C.E.....	5	1 0	608	33·1	36·21	171	140
D	Macclesfield (West Park)	.....E. Hamson, Esq., C.E. ...	5	1 0	500	34·1	36·94	174	146
D	Rainow (The Clough)	.....Miss Anna Neave	5	1 3	815	34·4	37·93	190	141
D	Knutsford (Hazelfield)	.....H. P. Ashworth, Esq.	5	1 0	213	30·3	34·77	174	135
D	Kettleshulme (Glebe House)	...A. Y. Barker, Esq.	5	1 6	850	39·6	40·54	173	146
D	Whaley Bridge (Todds Brook)	..Mr. F. Bowden	5	1 0	602	40·3	46·66	211	154
D	Disley (Lyme Park)	.....T. Molyneux, Esq., C.E. ..	5	1 0	674	..	36·41	160	135
D	Disley (Lyme Park)	.....T. Molyneux, Esq., C.E. ..	5	1 0	720	..	34·93	160	135
D	Runcorn (Weston Point)	.....Weaver Navigatn. Trustees	8	1 4	17	31·3	30·12	171	136
D	Moore (Uplands)	.....Lt.-Comm. G. K. Rylands, R.N.	5	1 0	120	..	28·98	181	134
d	High Lane (Lyme View)	.....S Arrowsmith, Esq.	5	1 0	602	..	(38·05)	(189)	(142)
D	Thelwall (The Clough)	.....E. W. Reynolds, Esq.	5	1 0	95	31·4	33·72	171	136
	Altrincham (Norman's Place)	...Miss G. A. Griffiths.....	5	8 0	150	33·6	36·35	..	..
	Altrincham (Burlington Cott.)	.Miss Laura Newton	8	2 6	103	31·4	35·51	..	..
	Cheadle (Adswood)	.....R. W. Wright, Esq.	5	1 0	186	..	33·53	..	..
D	Stockport (Isolation Hospital)	.N. Gebbie, Esq., M.D.	5	1 2	285	..	35·20	171	135
	Godley Reservoir *old g.*.	.....L. Holme Lewis, Esq., C.E.	5	2 0	500	31·8	35·69	..	..
D	Broadbottom(HarewoodLodge)	Col. W. Sidebottom	5	1 0	440	34·6	38·49	152	142
D	Dukinfield (Higher Reservoir)	.M. T. B. Whitson, Esq., C.E.	8	1 6	495	..	36·16	182	137
D	Dukinfield (Lower Reservoir)	..M. T. B. Whitson, Esq., C.E.	5	1 0	435	33·0	37·65	182	140
	Arnfield Reservoir *old g.*	.....L. Holme Lewis, Esq., C.E.	5	2 0	512	39·1	41·70	..	..
	Arnfield Reservoir, *new g.*	.....L. Holme Lewis, Esq., C.E.	5	1 0	512	..	42·50	..	..
	Rhodes Wood Reservoir *old g.*	.L. Holme Lewis, Esq., C.E.	5	1 6	545	42·9	44·06	..	..
	Torside Reservoir *old g.*	.....L. Holme Lewis, Esq., C.E.	5	2 0	669	44·0	43·66	..	..
	Torside Reservoir, *new g*	.....L. Holme Lewis, Esq., C.E.	5	1 0	669	..	43·53	..	..
D	Stalybridge(MarketGround Yd.)	M. T. B. Whitson, Esq., C.E.	5	1 0	373	..	39·32	164	140
D	Stalybridge (Brushes Filter Ho.)	M. T. B. Whitson, Esq., C.E.	5	1 6	616	39·2	41·59	173	146
	Swineshaw Moor (Lees Hill)	...M. T. B. Whitson, Esq., C.E.	5	1 0	1168	38·6	42·26	..	..
	Woodhead Reservoir, *new g*	...L. Holme Lewis, Esq., C.E.	5	1 0	815	47·7	48·11	..	..
	Crowden (Span Gutter)‡	.....L. Holme Lewis, Esq., C.E.	5	1 0	1530	..	46·96	..	..
	Woodhead (Pikenaze)‡	.....L. Holme Lewis, Esq., C.E.	5	1 0	907	..	34·27	..	..

‡ Gauge over-exposed on Moor.

DIVISION VIII.—NORTH-WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
CHESHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—MERSEY, UPPER—(*con.*).								
‡ Ormes Moor	L. Holme Lewis, Esq., C.E.	5	1 0	1356	..	44·10	..	..
‡ Pikenaze Moor (Round Hill)	L. Holme Lewis, Esq., C.E.	5	1 0	1514	..	37·77	..	..
‡ Upper Heyden	L. Holme Lewis, Esq., C.E.	5	1 0	1718	..	41·58	..	..
‡ Grains Moss	L. Holme Lewis, Esq., C.E.	5	1 0	1570	..	45·28	..	..
2.—MERSEY—Weaver. 489 sq. mi.								
D Wirswall Hall	F. H. Illingworth, Esq.	5	1 0	500	..	26·52	166	130
D Nantwich (Dorfold Hall)	Weaver Navigatn. Trustees	8	1 0	190	28·8	32·34	187	138
D Nantwich (Reaseheath Hall)	Weaver Navigatn. Trustees	8	1 0	130	29·1	31·88	211	136
D Crewe (Weston Lane)	L. M. & S. Rly.	12	4 0	186	28·2	30·28	156	126
D Crewe (Isolation Hospital)	Leonard Reeves, Esq., C.E.	5	1 0	172	27·6	26·77?	170	122
D Sandbach (Malkin's Bank)	Messrs. Brunner, Mond & Co.	5	1 0	230	..	30·44	166	126
D Congleton (Sewage Works)	W.H. Duncan Arthur, Esq., C.E.	5	1 0	248	30·1	36·73	175	143
D Congleton (Buglawton Sch.) *new g*	Weaver Navigation Trustees	8	1 0	347	..	33·56	188	134
D Congleton (Buglawton Vic.) *new g*	Weaver Navigation Trustees	8	1 0	347	..	33·50	186	134
D Tarporley (Tirley Garth Gdns.)	Mr. J. B. Allan	5	3 6	450	30·0	30·48	185	140
D Middlewich	Messrs. Brunner, Mond & Co.	5	1 0	138	..	30·68	157	129
d Middlewich (Bostock H.) *old g*	Capt. W. H. France-Hayhurst	5	2 0	157	29·3	31·82	..	121
D Delamere (Linmere)	Office of Woods	8	0 9	250	29·5	32·09	209	140
D Northwich (Sandiway, W.W.)	J. Birtwistle, Esq.	8	1 0	163	..	32·29	173	137
D Northwich (Hunts Lock)	Weaver Navigatn. Trustees	8	1 0	47	30·0	31·90	184	127
D Northwich (Winnington)	Messrs. Brunner, Mond & Co.	5	1 0	64	28·9	31·13	178	128
D Northwich (Barnton)	Giles Owen, Esq.	5	1 0	175	30·3	31·44	175	136
D Northwich (Lostock Gralam)	Messrs. Brunner, Mond & Co.	5	1 0	75	..	32·37	200	125
3.—MERSEY LOWER & C. 142 sq. mi.								
Tarporley (Willington Hall)	Major C. W. Tomkinson	5	1 0	220	..	30·43	..	..
D Ince Hall	Mrs. Park-Yates	5	1 0	95	..	33·01	189	143
D Hooton Waterworks	A. J. Robinson, Esq.	5	1 0	97	30·3	30·04	180	147
d Eastham	H. B. Vernon, Esq.	5	1 0	100	31·9	29·21	..	136
D Crosshill Reservoir *old g*	R. F. Baker, Esq.	5	1 0	237	..	28·98	186	135
D Crosshill Reservoir *new g*	R. F. Baker, Esq.	5	1 0	212	..	29·29	186	134
D Prenton Waterworks	A. J. Robinson, Esq.	5	1 0	91	28·1	31·16	167	151
D Rock Ferry (High School)	L. Davies-Shiel, Esq.	5	1 0	100	..	29·31	187	141
D Birkenhead (Oxton)	J. H. Howell, Esq.	5	1 1	163	..	28·64	163	132
D Birkenhead (Bidston Obs'y.) (+A)	The Director	8	1 0	189	27·9	25·15	172	134
D Hoylake (Recreation Gd.)	W. H. Maitland, Esq.	5	1 0	29	28·1	28·49	171	153
D Wallasey (Harrison Park)	Dr. T. W. N. Barlow	5	1 0	66	..	28·66	171	131
4.—DEE. 127 sq. mi.								
D Eaton Hall Gardens	Mr. N. F. Barnes	5	1 0	72	26·9	30·70	188	153
D Eccleston	E. Wells, Esq.	5	1 1	94	26·8	28·67	183	132
D Rowton (Holly Bank)	J. H. Salmon, Esq.	5	1 5	123	29·4	30·54	166	129
D Chester (Sewage Disposal Wks.)	C. Greenwood, Esq., C.E.	5	1 0	33	26·1	29·29	156	132
D Chester (Waterworks)	C. Wilfrid Bennett, Esq	5	0 10	85	26·4	27·04	186	131
D Capenhurst Hall	R. T. Richardson, Esq.	5	1 0	130	31·7	30·44	172	145
D Neston (Vine House)	H. F. Russell, Esq.	5	1 0	111	27·4	25·64	176	132
D Heswall (S Fillan's)	Capt. J. Deedes	5	1 0	40	..	25·52	169	135
D West Kirby (Caldy Manor)	Mr. E. L. Barker	5	6 0	131	27·9	24·44	168	130
West Kirby (Hilbre House)	Egerton Macdona, Esq.	5	0 9	25	27·8	26·51	..	..
d West Kirby (Princes Avenue)	Miss G. S. Kirkby	5	1 0	80	28·9	26·37	(177)	(132)
D West Kirby (St. Andrew's Vic.)	Rev. E. F. Robson	5	1 0	25	27·9	26·11	176	128
n West Kirby (Deeside Nursery)	H. Ward, Esq.	5	1 6	45	..	26·00	167	128
SOUTH LANCASHIRE. (Area, 687 sq. mi.)								
1.—ALT & C. 103 sq. mi.								
D Litherland (Hatton Hill Pk)†	G. W. Ponsford, Esq., C.E.	5	1 0	59	..	31·42	171	138
d Ormskirk (Bickerstaffe P. Stn.)	C. Burton Ede, Esq., C.E.	5	1 2	128	31·4	36·14	(162)	(117)
d Ormskirk (Springfield P. Stn.)	C. Burton Ede, Esq., C.E.	5	0 11	70	..	35·62	(151)	..
D Formby (The Dunes)	J. Harold Coney, Esq.	5	1 0	40	..	30·69	167	138

† Previously called Council Gardens, gauge has not been moved. ‡ Gauge over-exposed on Moor.

DIVISION VIII.—NORTH-WESTERN COUNTIES—(*con.*)

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SOUTH LANCASHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—MERSEY, LOWER. 240 sq. mi.								
D Garston	T. P. Frank, Esq., C.E.	10	1 0	82	..	35·67	185	155
D Garston (Grassendale Park)	Miss E. C. Abraham	5	1 0	35	30·1	33·14	181	146
D Aigburth (Beech Lawn)	T. H. Edwards, Esq.	8	1 0	120	31·7	30·34	178	140
D Liverpool (Lark Lane)	T. P. Frank, Esq., C.E.	10	10 8	90	..	32·72	178	139
D Liverpool (Smithdown Road)	T. P. Frank, Esq., C.E.	10	0 9	134	32·8	33·33	176	139
D Liverpool (Monument Pl.) (+A)	T. P. Frank, Esq., C.E.	5	1 3	124	..	30·16	166	127
D Liverpool (Rathbone Road)	T. P. Frank, Esq., C.E.	10	1 0	198	35·0	35·19	179	138
D Liverpool (Newsham Park)	T. P. Frank, Esq., C.E.	10	1 1	139	..	33·00	184	144
D Liverpool (Queens Drive)†	T. P. Frank, Esq., C.E.	5	0 9	134	34·9	31·54	174	130
D Warrington (Howley Yard)	A. M. Ker, Esq.	10	0 9	26	..	30·70	159	129
D St. Helen's (Eccleston Hill)	A. P. Statham, Esq.	12	1 0	265	33·8	34·10	190	135
D St. Helen's (Victoria Park)	Dr. F. Hauxwell	8	1 5	160	..	36·27	190	138
d Earlestown (Newton Cemetery)	T. F. Clough, Esq.	5	1 0	75	32·5	34·17	..	..
D Leigh (Sewage Works). (+A)	D. Ledson, Esq.	5	1 0	67	..	35·19	180	136
D Leigh (Leesrigg)	Maj. T. Hunter, V.D., C.E.	5	1 0	71	..	37·69	171	146
3.—MERSEY—Irwell. 299 sq. mi.								
D Manchester (Hullard Park)	E. Parker, Esq., C.E.	8	1 1	100	..	35·65	141	127
D Urmston (Sew. Wks., Davyhulme)	G. F. Walter, Esq.	8	1 0	72	31·4	36·15	163	144
D Patricroft (Eccles Sewage Wks.)	C. J. Girling, Esq.	5	1 0	72	..	33·35	166	138
D Manchester (Godlee Observ'y)	W. C. Jenkins, Esq.	8	1 6	140	33·0	34·29	163	125
D Manchester (Oldham Road)	Dr. R. Veitch Clark	5	1 0	191	34·3	37·50	174	138
D Manchester (Whitworth Park)	Manchester University	8	1 5	125	31·7	35·47	169	136
D Ashton-und.-Lyne (Knott H.Res.)	M. T. B. Whitson, Esq., C.E.	6	1 0	605	37·1	41·91	183	156
D Swinton (Victoria Park)	The Medical Officer of Health	6	1 0	253	..	35·98	169	135
D Prestwich Sewage Works	H. T. Ainsworth, Esq., C.E.	8	1 0	136	..	38·52	179	144
Prestwich Reservoir *old g*	L. Holme Lewis, Esq., C.E.	5	2 0	357	34·9	36·09	..	..
D Prestwich (Heaton Park)	Manchester Corporation	8	1 0	312	..	40·59	178	144
Prestwich (Heaton Park Res.)	L. Holme Lewis, Esq., C.E.	5	1 0	355	..	41·14	..	..
D Oldham Gas Works	Ernest Parry, Esq., C.E.	5	3 8	600	37·9	39·77	178	140
D Oldham (Brushes Clough) No. 3	C. J. Batley, Esq., C.E.	5	1 0	921	..	48·64	193	159
D Royton (Public Park)	J. Pattison, Esq., C.E.	5	1 0	502	..	40·54	177	141
D Bolton (Queen's Park) (+A)	T. Midgley, Esq.	5	1 0	342	43·7	47·55	192	146
D Bolton (Heaton Reservoir)	J. K. Swales, Esq., C.E.	5	1 0	500	43·4	46·15	197	156
Bolton W.W. (Harpers Farm)	J. K. Swales, Esq., C.E.	5	1 0	872	..	47·25	..	..
D Bolton (Bloomfield, Heaton)	Mrs. F. Taylor, J.P.	5	1 0	530	..	45·90	172	149
D Bolton (Smithills Hall)	Nigel V. Ainsworth, Esq.	8	1 2	510	46·1	50·68	197	155
D Horwich (Loco. Works)	L. M. & S. Rly.	5	1 0	400	..	47·66	203	150
D Bury (Parsons Lane)	R. B. Rigby, Esq.	8	9 6	316	..	47·32	188	148
D Bury (Bridge Hall)	Miss C. Wrigley	8	1 0	..	..	44·50	180	146
D Bradshaw (Sewage Works)	Turton U.D.C.	5	1 0	329	..	50·45	172	159
D New Hey (Sewage Works)	Mr. J. B. Ogden	5	1 0	514	41·4	44·50	179	144
D Milnrow (Butterworth Hall)	C. J. Batley, Esq., C.E.	5	1 0	512	43·6	46·13	198	159
D Milnrow (Piethorne, Kitcliffe)	C. J. Batley, Esq., C.E.	5	1 0	766	..	49·95	200	160
D Milnrow (Piethorne, Coldgreave)	C. J. Batley, Esq., C.E.	5	1 0	832	40·9	46·95	200	161
D Rochdale (Roch Mills Sew. Wks)	S. H. Morgan, Esq., C.E.	8	1 1	363	..	45·68	188	141
D Rochdale (Broadfield Pk. Obsy.)	Dr. A. G. Anderson	8	1 0	472	43·9	46·81	190	148
D Rochdale (Fieldhead Yard)	S. H. Morgan, Esq., C.E.	8	1 0	473	..	47·28	188	152
D Rochdale (Ashworth Moor Res.)	J. Entwistle, Esq.	5	1 2	956	..	45·81	184	151
Bolton (Egerton House) *old g.*	E. H. Ashworth, Esq.	5	1 0	633	49·0	54·16	..	..
Bolton (Egerton House) *new g.*	E. H. Ashworth, Esq.	5	1 0	633	48·6	54·19	..	..
D Bury (Gin Hall)	No. 1 Bury Water Board	8	1 0	475	43·7	46·35	186	148
D Bury (Gin Hall)	No. 2 Bury Water Board	8	1 0	475	44·0	48·34	186	149
D Bolton W.W. (Springs Reservoir)	J. K. Swales, Esq., C.E.	5	1 0	800	56·6	57·85	200	163
Bolton W.W. (Belmont Springs) No. 2	J. K. Swales, Esq., C.E.	5	1 0	810	..	58·68	..	..
‡ Bolton W. W. (Eagley)	No. 1 J. K. Swales, Esq., C.E.	5	1 0	605	..	50·26	..	..
Bolton W.W. (Eagley)	No. 2 J. K. Swales, Esq., C.E.	5	1 0	605	..	52·40	..	..
Bolton W. W. (Eagley)	No. 4 J. K. Swales, Esq., C.E.	5	1 0	546	..	57·32	..	..
M Bolton W.W. (Hordern)	J. K. Swales, Esq., C.E.	5	1 0	1160	52·5	60·08	..	..
Bolton W. W. (Delph)	J. K. Swales, Esq., C.E.	5	1 0	710	..	58·61	..	..
M Bolton W.W. (Longworth)	J. K. Swales, Esq., C.E.	5	1 0	770	51·8	57·01	..	..
Bolton W. W. (Wayoh)	No. 2 J. K. Swales, Esq., C.E.	5	1 0	612	..	57·43	..	..
Bolton W. W. (Wayoh)	No. 3 J. K. Swales, Esq., C.E.	5	1 0	608	..	57·26	..	..
Bolton W. W. (Holden's Farm)	J. K. Swales, Esq., C.E.	5	1 0	955	..	57·45	..	..
Bolton W.W. (Top-o'-th'-Brow)	J. K. Swales, Esq., C.E.	5	1 0	935	..	62·82	..	..

† At Breeze Lane until 25th June, 1929. ‡ Gauge over-exposed on Moor.

DIVISION VIII.—NORTH-WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
SOUTH LANCASHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
3.—MERSEY—Irwell—(*con.*).								
D Bolton W.W. (Entwistle)	J. K. Swales, Esq., C.E.	5	1 0	700	51·9	59·06	209	168
Bolton W.W. (Entwistle), No. 2	J. K. Swales, Esq., C.E.	5	1 0	692	..	59·31	..	..
Bolton W.W. (Bromiley Heys)	J. K. Swales, Esq., C.E.	5	1 0	925	..	59·97	..	..
Bolton W.W. (Hulton Pasture)	J. K. Swales, Esq., C.E.	5	1 0	1130	..	52·85	..	..
Bolton W.W (Moorside)	J. K. Swales, Esq., C.E.	5	1 0	850	..	54·91	..	..
Bolton W.W. (Clough) ..No. 2	J. K. Swales, Esq., C.E.	5	1 0	1025	..	61·09	..	..
‡Bolton W.W. (Cranberry Moss)	J. K. Swales, Esq., C.E.	5	1 0	975	..	57·57	..	..
Bolton W.W. (Cranberry Moss) No. 2	J. K. Swales, Esq., C.E.	5	1 0	982	..	59·22	..	..
M Bolton W.W. (Slater Lane)	J. K. Swales, Esq., C.E.	5	1 0	985	51·3	55·61	..	..
Bolton W.W. (Brown Lowe)	J. K. Swales, Esq., C.E.	5	1 0	1200	..	59·49	..	..
Bolton W.W. (Longshoot)	J. K. Swales, Esq., C.E.	5	1 0	930	..	57·57	..	..
‡ Bolton W.W. (Uglow)	J. K. Swales, Esq., C.E.	5	1 0	1150	..	50·32	..	..
Bolton W.W. (Uglow) ..No. 2	J. K. Swales, Esq., C.E.	5	1 0	1090	..	55·71	..	..
D Rochdale (Hamer Pasture Res.)	Rochdale Corporation W.W.	5	1 0	760	..	53·39	190	161
D Rochdale (Naden Filters)	J. Entwistle, Esq.	5	1 0	761	..	50·38	175	152
M Norden (Higher Red Lumb)	J. Entwistle, Esq.	5	1 3	1125	43·0	47·67	..	..
W Norden (Far Knowl Farm)	J. Entwistle, Esq.	5	0 10	..	45·7	54·65	..	..
W Rochdale (Naden Dean) *old g.*	J. Entwistle, Esq.	5	1 4	948	..	44·06	..	..
W Rochdale (Naden Dean) *new g.*	J. Entwistle, Esq.	5	1 4	948	..	47·38	..	..
d Littleborough (Longden End)	C. J. Batley, Esq., C.E.	5	1 0	751	..	48·68	..	..
D Littleborough (Hollngwrth Lke)	C. J. Batley, Esq., C.E.	8	1 0	610	..	42·23	185	152
d Littleborough (Broadhead)	C. J. Batley, Esq., C.E.	8	1 0	1337	..	39·77	..	..
d Littleborough (Blckstne Edge)	C. J. Batley, Esq., C.E.	8	1 0	1268	..	44·72	..	..
D Littleborough (Uppr Chlburn)	C. J. Batley, Esq., C.E.	8	1 0	725	..	49·06	204	161
D Littleborough (Chelburn)	C. J. Batley, Esq., C.E.	8	1 0	700	40·0	39·30	204	155
M Ramsbottom (Killgate Brook)	J. Entwistle, Esq.	5	1 0	978	45·6	49·59	..	..
M Ramsbottom (Cheesden Barn)	J. Entwistle Esq.	5	1 0	997	43·8	48·47	..	..
D Edenfield (Scout Moor Res.) No. 1	Bury Water Board	8	1 0	1275	37·4	42·28	190	147
D Edenfield (Scout Moor Res.) No. 2	Bury Water Board	8	1 0	1275	42·0	43·40	190	148
D Waterfoot (Cragg Reservoir)	F. W. Mozley, Esq., C.E.	5	1 0	1323	47·2	49·40	215	153
D Waterfoot (Cowpe Reservoir)	F. W. Mozley, Esq., C.E.	5	1 0	1013	47·1	49·93	215	161
D Rochdale (Spring Mill Whitworth)	Rochdale Corporation W.W.	5	1 0	720	51·4	54·50	181	159
D Rochdale (Cowm, Whitworth)	Rochdale Corporation W.W.	5	1 0	762	51·1	57·70	179	166
D Helmshore (Clough House)	A. C. Cullen, Esq.	5	1 0	650	48·1	54·26	183	160
D Haslingden (Holden Wood) No. 1	Bury Water Board	8	1 0	670	54·6	57·57	180	159
D Haslingden (Holden Wood) No. 2	Bury Water Board	8	1 0	670	46·1	55·28	180	157
D Haslingden (Calf Hey) . No. 1	Bury Water Board	8	1 0	800	51·9	52·68	180	159
D Haslingden (Calf Hey) ..No. 2	Bury Water Board	8	1 0	800	50·5	50·84	180	149
D Bacup (Sheephouse Reservoir)	F. W. Mozley, Esq., C.E.	5	1 0	1008	34·0	40·22	204	144
d Rawtenstall Cemetery	J. Johnson, Esq.	8	1 1	572	49·8	51·01	..	150
D Rawtenstall (Cloughbottom) No. 1	Bury Water Board	8	1 0	1025	46·3	51·79	181	160
D Rawtenstall (Cloughbottom) No. 2	Bury Water Board	8	1 0	1025	42·9	50·35	181	156
D Rawtenstall (Hapton Res.) No. 1	Bury Water Board	8	1 0	930	46·9	53·22	189	176
D Rawtenstall (Hapton Res.) No. 2	Bury Water Board	8	1 0	930	49·6	56·71	189	176
4.—MERSEY, UPPER. 45 sq. mi.								
D Didsbury (Linden Road)	L. G. King, Esq.	8	1 6	110	32·0	33·24	170	135
D West Didsbury (Town Hall) (R)	Manchester Corporation	8	7 6	121	..	31·48	155	130
D Stockport (Heaton Mersey)	Miss Leigh	5	1 0	220	30·3	30·82	175	139
D Chorlton-cum-Hardy Sew. Works	G. F. Walter, Esq.	8	4 6	95	31·0	31·30	168	131
D Fallowfield (Platt Field Park)	Manchester Corporation	8	1 0	124	..	32·61	159	134
Denton Reservoir *Old G*	L. Holme Lewis, Esq., C.E.	5	2 0	324	30·5	33·92	..	..
Gorton Reservoir *Old G*	L. Holme Lewis, Esq., C.E.	5	2 0	263	32·0	34·48	..	..
D Ashton-u-Lyne (Henrietta St Yd.)	M.T.B. Whitson, Esq., C.E.	7	1 0	394	..	40·08	190	151
D Lower Swineshaw Reservoir	M.T.B. Whitson, Esq., C.E.	8	1 6	886	44·7	44·71	174	153
Swineshaw Moor	M.T.B. Whitson, Esq., C.E.	5	1 0	1340	..	48·95	..	..
D Mossley (Manor House Yard)	M.T.B. Whitson, Esq., C.E.	5	1 0	636	..	42·55	179	147

‡ Gauge over-exposed on Moor.

DIVISION VIII.—NORTH-WESTERN COUNTIES—(*con.*).

	STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
	CENTRAL LANCASHIRE. (Area, 536 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	1.—RIBBLE & C. 326 sq. mi.								
	Darwen (Spring Bank)	T. Anderton, Esq.	5	1 0	710	..	57·25	..	..
D	Darwen (Sunnyhurst Hey Res.)	E. Marsden, Esq., C.E.	8	1 0	915	43·5	56·74	201	162
D	Darwen (Earnsdale Reservoir)	E. Marsden, Esq., C.E.	8	1 0	705	47·0	57·40	201	161
D	Darwen (Bold Venture Park)	Dr. J. Robertson	8	1 1	724	50.4	56·70	197	164
D	Darwen (Hoddlesden)	No. 1 H. M. Webb, Esq., C.E.	8	1 6	680	48·6	54·03	192	163
D	Darwen (Daisy Green)	No. 1 H. M. Webb, Esq., C.E.	8	1 6	969	46·4	48·01	194	153
D	Darwen (Pickup Bank)	No. 1 H. M. Webb, Esq., C.E.	8	1 6	720	46·8	47·13	194	150
D	Brindle (Whiteholme)	Mrs. Victor H. Gatty	5	1 0	315	34·4	41·80	175	150
D	Haslingden(MitchellsHo.Res.)	A. J. Harrison, Esq.	5	1 6	990	44·7	43·84	184	151
D	Blackburn (Guide Reservoir)	H. M. Webb, Esq., C.E.	8	1 6	610	39·6	48·14	196	158
D	Blackburn (Witton)	H. M. Webb, Esq., C.E.	8	1 6	315	..	42·73	186	141
D	Blackburn Fever Hospital	H. M. Webb, Esq., C.E.	6	1 6	570	..	41·79	203	157
D	Hutton (Lancs.C.C.Hortic.Stat.)	The Director of Education	5	1 0	82	35·4	38·11	185	140
D	St.Anne's-on-Sea(LawrenceHo.)	C. G. D. Hoare, Esq.	5	1 6	25	33·1	32·03	163	147
D	St. Anne's-on-Sea (South Side)	Dr. J. P. Litt.	5	1 0	25	32·8	31·57	178	133
D	Accrington (Milnshaw Park)	Mr. J. W. Terry	5	1 6	464	39·4	43·11	163	137
D	Preston (Corporation Offices)	E. C. Oakes, Esq. C.E.	8	18 7	148	35·3	39·35	204	149
D	Samlesbury Sewage Works	H. M. Webb, Esq., C.E.	8	1 6	240	40·4	40·56	178	142
W	Causeway Side (Burnley W.W.)	S. Rawlinson, Esq.	8	2 0	1116	..	42·93	..	..
W	Sheddin (Burnley W. W.)	S. Rawlinson, Esq.	8	2 0	960	43·3	45·83	..	..
D	CantCloughS.Side(BurnleyWW)	S. Rawlinson, Esq.	8	2 0	900	43·8	48·84	200	159
D	CantCloughN.Side(BurnleyWW)	S. Rawlinson, Esq.	8	2 0	900	41·6	45·49	200	157
W	RamsCloughHead(BurnleyWW)	S. Rawlinson, Esq.	8	2 0	1260	42·3	40·81	..	..
D	Huncoat (Burnley Road Res.)	A. J. Harrison, Esq	9	1 6	620	43·0	50·33	176	145
D	Wilpshire (Brooklyn Road)	H. W. Apperley, Esq.	5	1 0	408	..	44·68	195	148
D	Great Harwood (Parsonage Res.)	H. M. Webb, Esq., C.E.	8	1 0	631	..	47·62	198	160
D	Great Harwood (Dean Clough)	A. J. Harrison, Esq.	12	1 6	540	..	47·76	194	167
D	Burnley (Queen's Park)	Dr. T. Holt	8	1 0	458	..	42·20	187	142
D	Burnley (Swinden) *Upper g.*	S. Rawlinson, Esq.	8	12 0	820	..	45·75	215	159
D	Burnley (Swinden) *Lower g.*	S. Rawlinson, Esq.	8	2 0	745	44·3	46·34	215	162
D	Padiham(AlthamSew.Works)(+A)	H. Russell, Esq.,C.E.	5	1 0	225	..	45·75	190	150
D	Padiham (Gawthorpe Hall)	Lord Shuttleworth	8	0 9	316	43·2	43·06	183	149
D	Padiham (Huntroyde)	E. G. Howsin, Esq.	5	1 0	423	..	47·59	187	154
D	Alston Reservoir	E. C. Oakes, Esq. C.E.	8	1 2	320	41·0	42·09	188	153
	Nelson (Red Spa Moor)	J. A. Rodwell, Esq., C.E.	5	1 0	1285	..	41·87	..	..
D	Nelson (Lomeshaye Rd.)	F. Hartley, Esq.	5	0 10	460	..	42·45	178	143
D	Nelson (Coldwell Res.) S No. 2	J. A. Rodwell, Esq., C.E.	5	1 0	960	..	51·21	210	167
D	Nelson (Victoria Park)	J. A. Rodwell, Esq., C.E.	5	1 0	375	..	44·23	182	156
D	Nelson (Walton Lane)	(+A) J. W. Ingham, Esq.	5	1 0	540	..	45·00	182	147
D	Stonyhurst College	(+A) Rev. E. D. O'Connor	8	1 10	377	46·5	48·71	179	158
M	Knowle Green (Preston W. W.)	E. C. Oakes, Esq., C.E.	8	1 2	400	40·9	48·25	..	..
D	Spade Mill (Preston W. W.)	E. C. Oakes, Esq., C.E.	8	1 2	400	41·6	44·45	190	153
M	Jeffrey Hill (Preston W. W.)	E. C. Oakes, Esq., C.E.	8	1 2	900	47·2	54·52	..	..
D	Sabden (Whins House)	Miss Foster	5	1 0	500	..	47·16	183	165
D	Sabden (Churn Clough Res.)	H. Russell, Esq., C.E.	5	1 0	790	..	48·54	217	165
W	Sabden (Craggs Dole)	H. Russell, Esq., C.E.	8	1 0	1050	..	53·66	..	..
W	Newchurch (Cock Dole)	H. Russell, Esq., C.E.	5	1 0	1090	..	53·94	..	..
D	Barley (Ogden Reservoir)	J. A. Rodwell, Esq., C.E.	5	1 6	950	..	56·59	191	166
D	Colne (Swinden Sew. Works)	T. H. Hartley, Esq.	5	1 0	423	..	45·69	192	153
	Barrowford Reservoir	Leeds&Liverpool Canal Co.	8	1 0	473	..	42·47	..	..
	Foulridge (Upper Reservoir)	Leeds &Liverpool Canal Co.	8	1 0	582	..	43·15	..	..
	Foulridge (Reedy Moor)	Leeds &Liverpool Canal Co.	5	1 0	553	..	41·48	..	..
D	Clitheroe (Hall Foot)	L. King-Wilkinson, Esq.	5	1 5	378	..	43·56	185	152
D	Chatburn School	E. P. Aldersley, Esq.	5	0 11	322	..	46·71	196	154
D	Chatburn (Fir Tree House)	C. W. Wheeler, Esq.	5	1 0	385	..	44·38	189	155
	Clitheroe Downham Hall	R. C. Assheton, Esq.	10	1 6	464	41·5	45·51	..	..
	2.—RIBBLE—Douglas. 156 sq. mi.								
D	WiganWW(BillingeHigherEnd)	W. F. Gardner, Esq., C.E.	5	1 0	374	33·9	39·99	166	143
D	Orrell (Upholland Gram Sch.)	C. H. Cox, Esq.	5	1 0	320	35·5	38·14	202	138

DIVISION VIII.—NORTH-WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
CENTRAL LANCASHIRE—(*con.*)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—RIBBLE—Douglas—(*con.*).								
D Wigan W. W. (Worthington)	W. F. Gardner, Esq., C.E.	5	1 0	225	35·4	38·47	183	146
D Horwich (Lower Rivington)	Col. J. R. Davidson, C.E.	5	1 0	440	38·7	38·60	208	149
W Horwich (Lower Knoll)	Col. J. R. Davidson, C.E.	8	1 4	742	41·2	41·45	..	..
W‡Rivington (Brown Hill)	Col. J. R. Davidson, C.E.	8	1 4	843	40·1	43·78	..	..
D Rivington (Stoneshouse) No. 1	Col. J. R. Davidson, C.E.	8	1 4	623	41·5	42·67	184	145
W Rivington (Stoneshouse) No. 2	Col. J. R. Davidson, C.E.	8	1 4	623	41·1	43·16	..	..
D Chorley (Oakdene)	Dr. H. E. Middlebrook	5	1 0	283	..	40·57	183	150
W‡Rivington (Hurst Hill)	Col. J. R. Davidson, C.E.	8	1 10	1029	42·2	53·75	..	..
W‡Rivington (Great Hill)	Col. J. R. Davidson, C.E.	8	1 8	1240	47·6	56·62	..	..
W‡Rivington (Coppice Stile)	Col. J. R. Davidson, C.E.	8	1 8	879	40·1	43·82	..	..
W Rivington (Gamekeeper's)	Col. J. R. Davidson, C.E.	8	0 8	850	45·4	49·82	..	..
D Chorley (Com. Bk. Sew. Wks.)	J. Slater, Esq.	5	1 0	179	..	37·35	187	146
D Leyland (Worden Hall) (+A)	H. Nowell ffarington, Esq.	5	1 0	125	34·9	38·15	187	146
W‡Darwen (Higher Hill)	Col. J. R. Davidson, C.E.	8	1 4	733	36·8	42·80	..	..
D Bamber Bridge (Cuerden Hall)	J. Alleyne Robinson, Esq.	5	1 0	230	35·7	37·52	179	141
3.—COAST STREAMS. 52 sq. mi.								
W Birkdale (Kent Rd.)	J. Baxendell, Esq.	5	1 0	26	32·6	34·76	..	..
D Southport (Hesketh Park) (+A)	J. Baxendell, Esq.	8	1 0	37	32·0	32·06	184	137
4.—OUSE—Aire. 2 sq. mi.								
d Watersheddles Reservoir	A. Atkinson, Esq., C.E.	5	1 0	1115	..	48·78	(204)	(167)
Foulridge (Canal Office)	Leeds & Liverpool Canal Co.	8	1 0	497	..	43·05	..	..
NORTH LANCASHIRE. (Area, 609 sq. mi.)								
1. DUDDON & C. 77 sq. mi.								
D Barrow-in-Furness (Gas Works)	Claude Diamond, Esq.	11	3 0	17	37·6	49·86	190	156
D Barrow-in-Furness (Sewage Wks)	W. C. Persey, Esq., C.E.	5	1 0	20	..	42·31	197	149
D Little Urswick (North View)	J. Dobson, Esq.	5	1 6	130	45·4	50·39	195	153
D Askam (Senr. Council School)	The Headmaster	5	1 0	37	..	49·15	181	147
D Ulverston (Poaka Beck)	Claude Diamond, Esq.	11	1 6	512	52·1	57·59	205	178
D Ulpha	Claude Diamond, Esq.	11	1 6	251	..	65·67	213	176
d Duddon Valley (Seathwaite Sch.)	Miss Kay	5	1 0	348	..	95·04	..	..
w Duddon Val. (Seathwaite Tarn)	Claude Diamond, Esq.	11	1 6	1221	..	100·38	..	..
2.—LEVEN & C. 135 sq. mi.								
D Cartmel (Holker Hall)	Lord Richard Cavendish	5	0 9	85	44·5	47·94	189	159
D Ulverston (Pengwerne)	C. J. Chapman. Esq.	5	1 4	138	..	52·47	202	168
Rusland Hall	C. F. Archibald, Esq.	5	1 0	25	44·7	61·13	205	169
Cartmell Fell (Ghyll Head Res.)	J. Lupton, Esq.	8	1 3	600	..	62·68	..	..
d Coniston (School Garden)	L. Grace, Esq.	5	1 0	180	..	(82·50)	..	..
D Hawkshead (Tower Bank Sawrey)	Miss Alcock-Beck	5	1 0	342	65·1	67·72	203	168
Hawkshead (Foundation Sch.)	J. Lowe Handley, Esq.	5	1 0	214	..	74·12	..	..
D Hawkshead (Bettyfold)	H. T. Gnosspelius, Esq.	5	1 0	500	..	83·01	190	158
M‡Hawkshead (Black Fell)	Miss C. Marshall	5	1 6	1055	..	(80·37)	..	..
Ambleside (Skelwith Fold)	Miss C. Marshall	5	1 0	333	..	85·27	..	179
3.—KENT & C. 45 sq. mi.								
d Heysham Harbour	L. M. & S. Rly. Co.	5	1 6	25	..	37·23	..	..
D Morecambe	H. Morgans, Esq.	8	1 0	25	..	39·70	176	135
D Yealand Conyers (Morecambe Lo.)	J. Rawlinson Ford, Esq.	5	1 0	278	..	49·22	169	151
Grange-over-Sands (Nutwood)	J. Steen, Esq.	5	1 0	140	..	(48·41)	..	..
D Grange-over-Sands (Holmcroft)	R. Rhodes, Esq.	5	1 3	45	..	48·84	191	156
D Lindale (Ellerhow)	Lady Tomlinson	5	1 5	300	..	55·08	189	156
D Cartmel Fell (The Schoolhouse)	R. J. Cragghill, Esq.	5	1 0	220	54·9	60·33	215	178

‡ Gauge over-exposed on Moor.

DIVISION VIII.—NORTH-WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
NORTH LANCASHIRE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—LUNE. 135 sq. mi.								
D Hampson-in-Ellel	John Welch, Esq.	5	1 0	145	..	44·53	179	145
D Quernmore (Brow Top)	F. Hill, Esq., C.E.	8	1 0	552	..	49·50	167	149
Bowland Forest (High Salter)	J. T. Sanderson, Esq.	5	1 0	1014	..	59·51	..	..
Bowland Forest (Whiteray)	J. T. Sanderson, Esq.	5	1 0	1139	..	57·20	..	..
Bowland Forest (Lower Salter)	J. T. Sanderson, Esq.	5	1 0	572	..	56·42	..	..
D Lancaster (Strathspey)	A. B. S. Welch, Esq.	5	1 0	87	..	44·39	199	148
d Lancaster (The Friends School)	G. A. Watson, Esq.	5	1 0	55	..	39·69	..	128
D Lancaster (Blea Tarn Res.)	F. Hill, Esq., C.E.	8	1 0	330	..	44·12	183	142
D Lancaster (Greg Obsy.) (+A)	Neville Holden, Esq.	8	1 0	312	41·0	47·40	181	142
D Lancaster (Lune Aqueduct)	F. G. T. Adams, Esq.	8	3 0	74	..	44·78	189	152
D Wray (Wray House)	Baldwin Bent, Esq., C.E.	5	1 6	170	..	45·44	185	147
D Wennington (Tatham Rectory)	Rev. A. S. Roberts	5	1 3	150	..	46·92	161	149
5.—WYRE & C. 213 sq. mi.								
D Weeton Reservoir (No. 1)	Fylde Water Board	5	1 0	133	..	37·00	176	143
D Blackpool (Met. Observatory)	E.W. Rees Jones, Esq., M.D.	5	1 0	67	33·4	34·03	184	138
D Barton (Newsham House)	W. B. S. Smith, Esq.	5	1 0	100	..	40·27	171	145
D Kirkham (Elswick Lodge)	L. G. King, Esq.	5	1 0	52	37·9	36·87	185	147
D St. Michael's-on-Wyre	Vicarage. Ven. Archdeacon Hornby	5	1 0	26	36·6	37·93	173	141
d Fleetwood	Engineer and Surveyor	8	2 6	27	..	36·63	..	..
D Garstang (Barnacre Reservoir)	Fylde Water Board	5	1 0	616	46·4	51·08	193	157
D Garstang (Grizedale Reservoir)	Fylde Water Board	5	1 0	517	43·6	50·03	188	160
Garstang (Calder Intake)	Fylde Water Board	5	1 0	632	..	50·88	..	..
Garstang (Grizedale Intake)	Fylde Water Board	5	1 0	644	..	49·99	..	..
D Wyresdale (Abbeystead Res.)	F. Hill, Esq., C.E.	8	1 0	366	..	56·02	198	175
D Abbeystead Gardens	Mr. Geo. Penk	5	1 2	420	..	55·01	202	166
Quernmore (Old Gauge Basin)	F. Hill, Esq., C.E.	8	1 0	963	..	54·40	..	..
M Wyresdale (Wardstone)	F. Hill, Esq., C.E.	8	1 0	1440	..	70·02	..	..
6.—INSULAR. 4 sq. mi.								

DIVISION IX.—YORKSHIRE.

WEST RIDING. (Area, 2,791 sq. mi.)

1.—LUNE. 178 sq. mi.								
D Austwick (Leigh House)	R. Stockdale, Esq.	5	1 0	500	..	46·32	188	146
D Austwick (Beck House)	Rev. J. Turner	5	1 1	475	..	47·24	191	150
D High Bentham (Inglefield)	Geoffrey Holmes, Esq.	5	1 0	412	..	46·23	191	152
D Sedbergh (Brigg Flats)	The Misses Wilson	5	1 0	305	..	57·15	192	160
D Sedbergh (Haverabank)	A. Mountain, Esq.	5	1 0	450	..	60·61	187	161
2.—RIBBLE. 225 sq. mi.								
D Colne (Laneshaw Reservoir)	J. F. Bedford, Esq., C.E.	5	1 0	842	..	37·26	190	147
D Barnoldswick (Rainhall Road)	Asa Burniston, Esq.	5	1 2	549	..	41·27	181	145
Barnoldswick (Greenberfield L.)	Leeds & L'pool. Canal Co.	8	1 0	488	..	44·30	..	..
D Slaidburn (Thorneyholme)	Mr. G. Marr	5	1 0	380	..	60·35	182	157
D Slaidburn (Hareden Valley)	E. C. Oakes, Esq., C.E.	8	1 2	540	..	73·20	198	169
D Slaidburn (Langden Brook)	E. C. Oakes, Esq., C.E.	8	1 2	556	..	75·27	213	175
D Slaidburn (Dunsop Houses)	H. M. Webb, Esq., C.E.	8	1 6	450	62·9	66·92	184	166
D Slaidburn (Footholme)	H. M. Webb, Esq., C.E.	8	1 6	565	..	63·45	184	165
M Slaidburn (Middle Knoll)	H. M. Webb, Esq., C.E.	5	1 0	1288	..	71·30	..	..
D Slaidburn (Brennand)	H. M. Webb, Esq., C.E.	8	1 6	820	..	70·90	183	167
D Slaidburn (Croasdale House)	H. M. Webb, Esq., C.E.	8	1 6	600	..	56·57	187	160
D ‡Slaidburn (Croasdale Valley)	H. M. Webb, Esq., C.E.	8	1 6	720	..	43·30	187	160

‡ Gauge over-exposed.

DIVISION IX.—YORKSHIRE—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
WEST RIDING—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—RIBBLE—(*con.*).								
D Slaidburn (Whitendale)	H. M. Webb, Esq., C.E. ..	8	1 6	830	..	71·32	184	165
M Slaidburn (Cabin Hill)	H. M. Webb, Esq., C.E. ..	5	1 0	1559	..	77·07	..	..
M Slaidburn (Baxton Fell)	H. M. Webb, Esq., C.E. ..	5	1 0	1525	..	81·30	..	..
M Slaidburn (Saddle Hill)	H. M. Webb, Esq., C.E. ..	5	2 6	1475	..	57·79	..	..
D Settle (Cappleside)	Mrs. Geldard	5	0 10	500	..	51·86	197	153
D Settle (Gas Works)	J. W. Shepherd, Esq.	8	1 0	450	..	45·12	183	161
D Settle (Giggleswick School)	P. Haswell, Esq., M.A.....	8	1 0	575	..	41·45	181	150
d Horton-in-Ribblesdale	Nathaniel Hunt, Esq.	5	1 0	800	..	51·38	..	..
3.—MERSEY—Irwell. 2 sq. mi.								
4.—MERSEY, UPPER. 35 sq. mi.								
Greenfield (Upperwood Moor)	M. T. B. Whitson, Esq., C.E.	5	1 0	1518	46·5	46·66	..	..
D Greenfield (Chew Mount)	M. T. B. Whitson, Esq., C.E.	5	1 0	1578	52·2	48·48	202	155
Greenfield (Chew Reservoir)	M. T. B. Whitson, Esq., C.E.	5	1 0	1648	..	54·54	..	..
D Greenfield (Yeoman Hey)	M. T. B. Whitson, Esq., C.E.	5	1 0	759	50·4	45·50	176	152
Greenfield (Ashway Moss)	M. T. B. Whitson, Esq., C.E.	5	1 0	1581	37·1	43·55	..	..
Greenfield (Birchen Clough)	M. T. B. Whitson, Esq., C.E.	5	1 0	1018	53·2	49·56	..	..
Saddleworth Station	L. M. & S. Rly.	5	4 10	630	..	41·45	..	..
D Oldham (Strinesdale) *New*	C. J. Batley, Esq., C.E. ..	5	1 0	791	35·9	45·44	189	149
D Standedge (CasShawBroadh'd) *New*	C. J. Batley, Esq., C.E. .	8	1 0	857	41·8	50·65	218	168
M Standedge (Redbrook Res.)	L. M. & S. Rly.	8	2 0	1150	45·7	46·28	..	..
D Denshaw (Ox Hey) *New*	C. J. Batley, Esq., C.E. ..	8	1 0	1031	42·7	48·69	205	159
D Denshaw (Crawshaw Hey)	C. J. Batley, Esq., C.E. ..	8	1 0	956	..	47·16	205	160
D Denshaw (New Year's Br.) *New*	C. J. Batley, Esq., C.E ..	8	1 0	986	..	44·14	205	160
5.—TRENT—Derwent. 7 sq. mi.								
M Derwent Dale (Abbey Brook) 65	S. B. Winser, Esq., C.E. .	5	1 0	825	44·9	47·43	..	..
M Derwent Dale (Howden Cl'gh) 64	S. B. Winser, Esq., C.E. ..	5	1 0	1030	43·0	48·78	..	..
Derwent Dale (Howden Ho.) 19	S. B. Winser, Esq., C.E. ..	8	1 0	890	42·9	41·97	..	..
M Derwent Dale (Sandy Lee) No. 7	S. B. Winser, Esq., C.E. ..	5	1 0	1340	45·7	45·94	..	..
6.—TRENT—Left Bank Tributaries. 143 sq. mi.								
D Lindrick Common (Woodside)	J. F. Eardley, Esq.	5	1 0	250	..	22·20	139	103
D Woodsetts Grange (Old Vic.)	H. P. Marsh, Esq.	5	1 6	220	..	23·17	155	108
7.—OUSE—Don. 584 sq. mi.								
D Sheffield W.W. (Redmires R.) (R)	S. H. Studley, Esq., C.E. .	10	5 0	1110	40·3	35·23	177	139
Sheffield W.W. (Redmires Res.)	S. H. Studley, Esq., C.E. .	8	4 0	1110	..	34·90	..	..
D Sheffield W.W (Rivelin)	S. H. Studley, Esq., C.E...	8	1 6	564	35·7	34·38	165	131
D Sheffield W.W. (Crookes) .. (R)	S. H. Studley, Esq., C.E...	10	2 0	629	29·9	28·21	150	119
Sheffield W.W. (Crookes)	S. H. Studley, Esq., C.E...	8	2 0	629	29·9	28·09	..	..
D Sheffield (Weston Park)	E. Howarth, Esq.	8	1 0	428	30·4	28·05	166	123
Loxley Valley (Broadcar)	S. H. Studley, Esq., C.E...	5	1 0	1004	45·4	41·23	..	..
Loxley V. (Oaks Fm. Damflask)	S. H. Studley, Esq., C.E...	5	1 0	650	..	32·73	..	..
Loxley V. (Loftshaw, Strines)	S. H. Studley, Esq., C.E...	5	1 0	1011	44·3	42·23	..	..
Loxley V. (Dale Dike Res.)	S. H. Studley, Esq., C.E...	8	1 6	715	40·9	36·64	..	..
Loxley V. (Thornseat)	S. H. Studley, Esq., C.E...	5	1 0	1326	..	39·31	..	..
Loxley V. (Rocher Flat)	S. H. Studley, Esq., C.E ..	5	1 0	1106	38·3	33·36	..	..
Loxley V. (Emlin Moor)	S. H. Studley, Esq., C.E...	5	1 0	998	..	42·53	..	..
D Rotherham (Ulley Res.) .. (2)	Vincent Turner, Esq., C.E.	5	1 0	184	..	20·08	124	93
D Rotherham (Ulley Res.) .. (1)	Vincent Turner, Esq., C.E.	5	1 0	184	..	18·66	124	88
D Rotherham (Ullev Res.) .. (3)	Vincent Turner, Esq., C.E.	5	1 0	132	..	20·42	124	93
D Wincobank (SewageWorks) (+A)	J. Haworth, Esq.	5	2 0	90	..	22·21	157	96
D Rotherham (Sitwell Vale)	G. Howard, Esq.	5	1 0	300	27·0	22·22	159	108
D Rotherham (Kimberw'rthSch.)	Vincent Turner, Esq., C.E.	5	1 0	258	..	22·10	156	102

DIVISION IX.—YORKSHIRE—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
WEST RIDING—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
7.—OUSE—Don—(*con.*).								
D Rotherham (Aldwarke.SewWk.)	James H. Kershaw, Esq. .	5	1 4	71	..	21·88	157	97
D Rotherham (Thrybergh)	F. O. Kirby, Esq., C.E. ..	8	1 0	184	24·9	21·13	148	107
D Rawmarsh	L. Atkinson, Esq.	5	1 0	230	..	21·22	156	97
D Ecclesfield (Sewage Works)	F. Thurlby, Esq.,M.C., C.E.	8	1 0	172	..	26·17	160	112
D Conisborough (Firsby Res.)	F. O. Kirby, Esq., C.E.	8	1 4	189	..	20·99	153	107
D Wentworth Woodhouse	Mr. A. Third	5	0 10	360	..	23·75	145	102
D Mexborough	G.Fenwick Carter,Esq.C.E.	5	1 6	77	..	19·14	144	97
Wortley (Service Reservoir)	J. R. Fox, Esq., C.E.	5	1 0	700	29·5	28·73	171	127
Midhope Moor (Barnside)	J. R. Fox, Esq., C.E.	5	1 0	1000	39·2	46·89	196	139
D Little Don Val. (Underbank Rs.)	S. H. Studley, Esq., C.E...	8	1 6	604	35·0	33·03	172	122
Little Don Val. (Brockholes)	S. H. Studley, Esq., C.E...	5	1 6	934	34·1	30·01	..	..
Little Don Val. (Sheep House)	S. H. Studley, Esq., C.E...	5	1 6	974	34·3	28·71	..	..
D Little Don Val. (Bridge Lane)	S. H. Studley, Esq., C.E...	8	1 0	761	37·3	38·03	195	130
Langsett Moor (Midhope)	J. R. Fox, Esq., C.E.	5	1 0	830	40·3	33·56	185	132
D Langsett Moor (Up. Midhope)	S. H. Studley, Esq., C.E...	8	1 6	925	39·9	36·13	192	127
Langsett Moor (Mickleden)	S. H Studley, Esq., C.E...	5	1 6	1217	46·8	48·14	..	..
Langsett Moor (Catclough)	S. H. Studley, Esq., C.E...	8	1 6	1516	46·4	46·79	..	..
Langsett Moor (Fiddlers Green)	S. H. Studley, Esq., C.E...	8	1 6	1493	48·0	44·97	..	..
Langsett Moor (Border Hill)	S. H. Studley, Esq., C.E...	5	1 6	1148	46·1	48·19	..	..
D Langsett Moor (Swinden Lodge)	S. H. Studley, Esq., C.E...	8	1 6	1037	43·3	41·92	233	149
D Langsett Moor (Flouch Road)	S. H. Studley, Esq., C.E...	8	1 0	960	39·3	39·08	195	126
D Wath-upon-Dearne (Chapel St.)	Dr. T. Crowley	8	1 3	188	24·8	20·61	148	96
D Doncaster (Pumping Station)	F. O. Kirby, Esq., C.E. ..	5	1 6	30	..	20·13	146	97
D Doncaster (Avenue Road)	M. H. Stiles, Esq.	5	1 3	60	..	22·27	151	98
D Bolton-on-Dearne (Goldthorpe)	E. Washington, Esq.	5	1 6	130	..	22·74	157	106
D Dunford Bridge Res.	H. Dearden, Esq. C.E.	8	2 0	1111	..	49·57	184	150
Penistone (Scout Dike Res.)	J. R. Fox, Esq., C.E.	5	1 0	730	..	29·58	188	132
Penistone (Ingbirchworth Res.)	J. R. Fox, Esq., C.E.	5	1 0	853	38·3	39·26	181	115
Penistone (Broadstone Res.)	J. R. Fox., Esq., C.E.	5	1 0	..	..	35·05	177	126
D Barnsley (Jordan Hill)	J R. Fox, Esq., C.E.	5	1 0	460	26·2	23·31	165	113
D Bentley Colliery	Messrs.Barber,Walker&Co.,Ltd.	5	1 0	23	..	19·67	149	92
D Cawthorne (Cannon Hall)	J.M.Spencer Stanhope, Esq.	5	0 11	418	28·8	25·41	133	112
D Barnsley (Burntwood Hall)	J. Dymond, Esq.	5	1 0	378	..	24·68	161	109
d Kirk Bramwith	C. E. Farran, Esq., C.E. ..	5	1 0	17	..	20·32	..	..
D Ackworth School	The Headmaster	8	1 0	100	25·1	19·72	133	101
D Goole	Aire & Calder Navigation .	5	1 0	18	22·9	20·00	146	96
8.—OUSE—Aire—Calder. 351 sq. mi.								
D Holmbridge (Yateholme Res.)	W.H. Duckworth, Esq.,C.E.	5	1 0	1009	60·1	61·47	201	168
D Holmbridge (Yateholme Farm)	W.H. Duckworth, Esq.,C.E.	5	1 0	861	57·9	60·43	201	164
Holmbridge (Bilberry Res.)	Messrs. Mallinson & Son ..	5	1 0	970	55·9	51·95	..	..
Holmfirth (Holme Styes Res.)	Messrs. Mallinson & Son ..	5	1 0	830	45·9	43·50	..	..
Holmfirth (Boshaw Whams R.)	Messrs. Mallinson & Son ..	5	1 0	930	49·6	48·40	..	..
D Holmfirth (Thongsbridge)	Mrs. Robson.	8	1 0	..	..	46·42	169	137
Meltham (Harden Moss)	J. W. Armitage, Esq., C.E.	8	1 0	1212	47·1	45·69	..	..
Meltham (Harden Moss) *new g.*	J. W. Armitage, Esq., C.E.	8	1 0	1212	..	47·67	..	..
Wessenden Head *new g.*	J. W. Armitage, Esq. C.E.	8	1 0	1200	..	41·49	..	..
Wessenden (Holly Bank Moss)	J. W. Armitage, Esq., C.E.	8	1 0	1280	..	39·14	..	..
Wessenden (Old Reservoir)	J. W. Armitage, Esq., C.E.	8	1 0	940	..	41·06	..	..
Wessenden (Butterley Moss)	J. W. Armitage, Esq., C.E.	8	1 0	1110	..	41·03	..	..
Wessenden (Bobus)	J. W. Armitage, Esq., C.E.	8	1 0	1200	43·4	33·69	..	..
Meltham (Brow Grains)	J. W. Armitage, Esq., C.E.	8	1 0	900	45·6	42·16	..	..
Meltham (Royd Edge)	C. L. Brook, Esq.	8	1 0	585	49·0	46·08	..	..
D Meltham (Harewood Lodge)	C. L. Brook, Esq.	8	1 0	514	44·7	43·89	196	141
Meltham Grange	J. W. Armitage, Esq., C.E.	8	1 0	850	41·2	38·82	..	..
Marsden Reservoir*	L. M. & S. Rly.	8	2 4	692	..	45·90	..	..
Marsden (Deer Hill)	J. W. Armitage, Esq., C.E.	8	1 0	1149	43·3	43·15	..	..
Marsden (Deer Hill) *new g.*	J. W. Armitage, Esq., C.E.	8	1 0	1149	45·5	43·13	..	..
D Slaithwaite (Blackmoorfoot)	J. W. Armitage, Esq., C.E.	8	1 0	800	44·1	37·90	229	153
D Slaithwaite (Inglewood)	J. Woodhead, Esq.	5	1 0	546	45·5	40·20	204	143

* Gauge on a steep bank.

DIVISION IX.—YORKSHIRE—(*con.*).

	STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
	WEST RIDING—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	8.—OUSE—Aire—Calder—(*con.*).								
d	Huddersfield (Bank Field, Golcar)	Miss M. J. R. Sykes.....	6	1 0	400	40·2	35·21	..	119
D	Huddersfield (Ravensknowle)....	C. Mosley, Esq.....	8	0 11	325	..	27·03	172	117
w	Huddersfield (Langley Ter.)(No.1)	S. Morris Bower, Esq. ...	5	1 0	772	..	26·09	..	..
	Huddersfield (Croslands Rd.)(No.2)	S. Morris Bower, Esq.....	4	1 0	761	..	31·67	..	..
D	Huddersfield (Oakes)	S. Morris Bower, Esq.	5	1 0	761	..	29·50	184	117
w	Moss Moor (Linsgreave)	C. Clemesha Smith, Esq., C.E.	5	1 0	1264	..	49·75	..	..
D	Rishworth (G. Walden Edge) *old*	C. Clemesha Smith, Esq., C.E.	8	1 2	1135	49·2	49·43	203	167
D	Rishworth (G. Walden Edge) *new*	C. Clemesha Smith, Esq., C.E.	5	1 0	1078	49·2	48·00	210	166
w	Rishworth (Stott Hall) ....*old*	C. Clemesha Smith, Esq., C.E.	8	1 0	937	..	44·03	..	..
w	Rishworth (Stott Hall) ..*new*	C. Clemesha Smith, Esq., C.E.	5	1 0	935	..	43·66	..	..
D	Rishworth Lodge.....	C. Clemesha Smith, Esq., C.E.	5	0 11	950	..	44·05	190	151
D	Rishworth (Ringstone Res.) *old*	C. Clemesha Smith, Esq., C.E.	5	1 0	980	42·6	38·69	206	135
D	Rishworth (Ringstone Res.) *new*	C. Clemesha Smith, Esq., C.E.	5	1 0	962	42·6	42·81	205	141
w	Rishworth Moor (Greystones)..	C. Clemesha Smith, Esq., C.E.	5	1 4	1192	..	49·77	..	..
d	Soyland Moor (Rishworth Drain)	C. J. Batley, Esq., C.E. ..	8	1 0	1290	..	53·20	..	..
w	Soyland Moor (Summit)(No.1)	C. Clemesha Smith, Esq., C.E.	5	1 0	1280	..	41·88	..	..
w	Soyland Moor (Summit)(No. 2)	C. Clemesha Smith, Esq., C.E.	5	0 11	1218	..	47·59	..	..
D	Soyland Moor (Stansfield Hey)	C. Clemesha Smith, Esq., C.E.	5	1 0	700	..	40·78	196	151
D	Soyland Moor (Baitings Gate)..	C. Clemesha Smith, Esq., C.E.	5	1 0	943	50·1	48·07	196	157
d	Soyland Moor (Byron Edge) ..	C. J. Batley, Esq., C.E. ..	8	1 0	1251	..	47·22	..	..
w	Soyland Moor (Manshead)	C. Clemesha Smith, Esq., C.E.	5	1 0	1225	..	47·55	..	..
d	Walsden (White Holme)	C. J. Batley, Esq., C.E. ..	8	1 0	1240	..	46·12	..	..
D	Walsden (Calf Lee)	Rochdale Corporation	8	1 1	960	39·6	47·63	206	158
D	Walsden (Warland Res.)	Rochdale Corporation	8	1 5	1245	..	53·66	218	172
D	Walsden (Warland Drain)	Rochdale Corporation	8	1 0	1250	..	48·23	208	157
	Walton Hall.....	E. T. B. Simpson, Esq.....	5	0 10	137	..	21·34	..	..
D	Horbury (Addingford Hos.) ...	J. H. Horsfall, Esq.	8	1 0	169	..	22·35	156	113
	Horbury (Highfields)	J. H. Green, Esq.....	5	1 0	226	..	21·73	..	..
D	Mirfield (Cote Wall)	F. P. Mitchell, Esq.	8	1 0	200	30·2	27·49	163	115
d	Wakefield (Northgate)	J. H. Garner, Esq.	8	1 0	174	..	21·12	..	..
D	Wakefield (Clarence Park)	C. Clemesha Smith, Esq., C.E.	5	1 0	124	25·4	22·70	173	109
D	Wakefield (Fieldhead Res.)	C. Clemesha Smith, Esq., C.E.	5	1 0	250	..	20·89	132	105
D	Normanton (Haw Hill Park)...	The Surveyor, U.D.C.....	8	1 1	136	..	20·62	167	111
D	Sowerby Br. (Haugh End) No.4	S. G. C. Rawson, Esq.....	5	1 0	450	41·9	34·89	157	132
D	Walsden (Ramsden Reservoir)	Rochdale Corporation	5	1 0	993	..	51·74	189	149
D	Cragg (Green Withens Res.) ..	C. Clemesha Smith, Esq., C.E.	5	1 0	1205	..	46·08	209	165
D	Todmorden (Fielden Hospital)	F. Rogers, Esq.....	5	1 0	650	..	43·64	217	157
D	Todmorden (Sourhall Hospital)	F. Rogers, Esq.....	5	1 0	1020	54·1	50·63	188	156
D	Halifax (Public Library)	E. Green, Esq.	8	1 0	625	34·7	28·56	195	131
D	Dewsbury (Crow Nest Park) ..	H. Roscoe, Esq.	8	0 9	277	..	24·10	188	119
D	Batley (Staincliffe Reservoir) ..	W. H. Duckworth, Esq., C.E.	5	1 0	492	..	22·57	150	111
D	Ardsley Reservoir .....No. 1	C. Clemesha Smith, Esq., C.E.	5	1 2	395	..	22·37	167	112
D	Ardsley Reservoir .....No. 2	C. Clemesha Smith, Esq., C.E.	5	1 2	326	..	22·37	168	110
D	Ardsley (Jaw Hill Filters)	C. Clemesha Smith, Esq., C.E.	5	1 0	315	..	20·83	139	113
D	Halifax W.W. (Albert)	E. P. Brook, Esq., C.E. ..	5	1 0	795	36·4	32·32	196	131
D	Halifax W.W. (Gibbet)	E. P. Brook, Esq., C.E. ..	5	1 0	568	35·9	33·02	185	137
D	Halifax W.W. (Ramsden Wood)	E. P. Brook, Esq., C.E. ..	5	1 0	815	..	35·71	186	143
D	Hebden Bridge (Burnside)	Miss M. Hoyle, ...	5	1 0	830	44·2	40·89	218	157
D	Halifax W.W. (Castle Carr Lo.)	E. P. Brook, Esq., C.E. ..	5	1 0	1060	41·3	35·88	213	153
w	Halifax W.W. (Midgley Mr.) *New*	E. P. Brook, Esq., C.E. ..	8	1 0	1350	47·5	39·66	..	..
w	Halifax W.W. (Warley Mr.) *New*	E. P. Brook, Esq., C.E. ..	8	1 0	1325	44·9	36·98	..	..
D	Halifax W.W. (Ogden)	E. P. Brook, Esq., C.E. ..	5	1 0	990	43·4	39·24	192	148
w	Halifax W.W. (Ovenden Mr.) *New*	E. P. Brook, Esq., C.E. ..	8	1 0	1375	45·7	37·24	..	..
w	Halifax W.W. (Gorple)	E. P. Brook, Esq., C.E. ..	8	1 0	1320	..	44·16	..	..
D	Halifax W. W. (Gorple Res.)...	E. P. Brook, Esq. C.E. ..	5	1 6	1028	..	36·01	204	137
D	Halifax W.W. (Widdop)	E. P. Brook, Esq., C.E. ..	5	1 0	1050	47·1	41·05	199	161
D	Hal. W.W. (Walshaw Dean Lo.)	E. P. Brook, Esq., C.E. ..	5	1 0	1040	48·8	44·45	202	158
w	Halifax W.W. (Walshaw Dean)	E. P. Brook, Esq., C.E. ..	8	1 0	1380	45·9	48·67	..	..
	9.—OUSE—Aire. 504 sq. mi.								
D	Pontefract (The King's School)	A. Hudson, Esq.....	5	1 0	189	..	20·89	145	104
D	Pontefract (Roall W.W.)	W. H. Newton, Esq., C.E..	8	1 0	42	..	20·07	150	97
	Bradford (Grange Rd., Horton)	A. E. Chilton, Esq.	5	3 0	450	35·0	28·65	182	130
	Bradford (Brayshaw Reservoir)	L. Mitchell, Esq., C.E. ...	5	1 0	982	37·1	31·87	..	..

DIVISION IX.—YORKSHIRE—(*con.*).

	STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with .01 in. or more.	Days with .04 in. or more.
	WEST RIDING—(*con.*)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	9.—OUSE—Aire—(*con.*).								
	Bradford (Lister Park)	Mr. J. Moorby	8	1 0	439	31·4	28·80	179	124
D	Bradford (Thornton Moor Filters)	L. Mitchell, Esq., C.E.	5	1 0	1190	43·9	43·30	194	155
D	Bradford (Stubden Res.) No. 8.	L. Mitchell, Esq., C.E.	5	1 0	1071	44·9	41·49	197	151
M	Bradford (Nan Scar, Oxenhope)	L. Mitchell, Esq., C.E.	5	1 0	1101	46·9	44·81	..	..
M	Bradford (Stairs Top, Oxenh'pe)	L. Mitchell, Esq., C.E.	5	1 0	1360	47·9	52·64	..	..
D	Bradford (Leeming Reservoir)	L. Mitchell, Esq., C.E.	5	1 0	850	40·6	38·83	195	146
M	Bradford (Doe Park Reservoir)	L. Mitchell, Esq., C.E.	5	1 0	760	40·7	35·15	..	..
M	Bradford (Leeshaw Res.)	L. Mitchell, Esq., C.E.	5	1 0	875	48·2	47·97	..	..
D	Bradford (Chellow Dean Res.)	L. Mitchell, Esq., C.E.	5	1 0	645	35·6	30·83	181	136
D	Bradford (Chellow Heights Res.)	L. Mitchell, Esq., C.E.	5	1 0	848	36·6	31·53	184	140
	Bradford (Hewenden Res.)	L. Mitchell, Esq., C.E.	5	1 0	701	38·6	35·01	..	..
M	Bradford (Heaton Reservoir)	L. Mitchell, Esq., C.E.	5	1 0	531	32·1	28·27	..	..
	Leeds (Wortley Reservoir)	H. Shortreed, Esq., C.E.	8	0 9	307	29·3	24·87	163	117
	Leeds (Knostrop)	H. Shortreed, Esq., C.E.	8	0 9	72	..	18·39	125	95
	Leeds (Great George Street)	H. Shortreed, Esq., C.E.	5	0 9	180	..	21·34	142	113
d	Leeds (Kingfisher)	Greevz Fysher, Esq.	5	14 0	247	..	22·00	(155)	(105)
	Leeds (Woodhouse Moor)	H. Shortreed, Esq., C.E.	8	0 9	307	26·7	21·76	178	111
D	Seacroft (Leeds City Hospital)	Dr. J. S. Anderson	8	1 0	235	..	24·80	147	109
	Leeds (Weetwood Res.)	H. Shortreed, Esq., C.E.	8	0 9	328	..	24·45	182	122
D	Leeds (Weetwood Garth)	Mrs. F. Gott, J.P.	5	1 0	300	..	24·70	140	112
D	Leeds (Weetwood)	F. J. Kitson, Esq.	5	2 0	250	..	25·80	149	123
D	Leeds (Harrogate Road)	Greevz Fysher, Esq.	5	1 0	400	..	23·59	140	112
	Leeds (Allerton Hill)	T. Harding Churton, Esq.	5	0 8	418	27·5	22·65	..	..
D	Haworth (Harbour Lodge)	A. Atkinson, Esq., C.E.	8	1 0	1187	52·7	49·76	185	159
D	Haworth (Lower Laithe Res.) (+A)	A. Atkinson, Esq., C.E.	6	0 10	772	..	44·78	201	150
D	Oakworth (Oldfield Filters)	A. Atkinson, Esq., C.E.	5	1 0	1008	..	41·87	206	153
D	Bingley (Sewage Works)	J. R. Brown, Esq.	5	1 1	227	..	29·89	172	132
D	Rawdon	Rawdon U.D.C.	5	1 0	579	..	25·32	166	119
D	Bingley (Gilstead Filters)	L. Mitchell, Esq., C.E.	5	1 0	572	29·3	28·82	174	131
D	Bingley (Park Top)	M. E. Burton, Esq.	5	1 0	650	..	30·27	191	141
D	Adel (Lawns Wood Cemetery)	L. Hodgson, Esq.	5	1 0	475	..	33·96	220	171
D	Keighley (The Knowle)	P. Clough, Esq.	5	1 0	390	..	34·14	181	130
D	Keighley (Victoria Park)	Mr. R. Butterfield	5	1 0	304	..	33·02	179	135
D	Bingley (East Morton)	J. Rhodes, Esq.	5	1 0	530	..	28·69	181	137
	Bingley (Sunnydale Reservoir)	L. Mitchell, Esq., C.E.	5	1 0	825	33·8	27·70	..	..
D	Salterforth (Barnoldswick W.W.)	J. P. Thompson, Esq.	8	1 4	832	..	45·38	170	157
D	Earby (Sewage Works) (+A)	H. Pritchard, Esq., C.E.	5	1 9	426	..	39·44	176	141
M	Silsden (Gill Grange)	L. Mitchell, Esq., C.E.	5	1 0	883	31·6	27·94	..	..
D	Silsden Reservoir	L. Mitchell, Esq., C.E.	5	1 0	560	31·0	32·98	188	140
M	Silsden (Cringles Res. Site)	L. Mitchell, Esq., C.E.	5	1 0	715	32·3	31·86	..	..
D	Elslack (Stories Farm)	J. P. Thompson, Esq.	5	0 7	675	..	31·91?	161	130
	Carleton (Beech Hill)	W. Cyril Empson, Esq.	8	1 3	425	..	38·58	..	..
D	Skipton (Town Hall) (A)	A. E. W. Aldridge, Esq.	6	1 6	367	..	34·05	172	133
	Gargrave (Banks Hill Bank Nwtn)	Leeds & Liv'pool Canal Co.	8	1 0	545	..	36·17	..	..
	Gargrave (Ray Bridge Hill)	Leeds & Liv'rpool Canal Co	8	0 10	459	..	43·30	..	..
D	Rylstone Rectory	Rev. Canon C. H. Lowe	6	0 10	700	..	39·19	204	145
	Winterburn (Long Hill)	Leeds & Liv'pool Canal Co.	8	0 9	705	..	36·97	..	..
	Winterburn (Brown Hill)	Leeds & Liv'pool Canal Co.	8	1 0	961	..	44·19	..	..
	10.—OUSE—Wharfe. 408 sq. mi.								
D	Aberford (Lotherton Hall)	Col. R. T. T. Gascoigne, D.S.O.	5	1 6	208	..	22·42	166	113
d	Bolton Percy (Nun-Appleton Hall)	Ben Dawson, Esq.	5	1 6	25	..	20·69	..	..
	Adel (Eccup, East)	H. Shortreed, Esq., C.E.	8	0 9	375	..	26·25	196	129
	Harewood (Arthington)	H. Shortreed, Esq., C.E.	8	0 9	139	..	25·34	183	121
D	Harewood House	Dowager Countess of Harewood	5	0 10	300	..	27·57	139	121
D	Otley (Sewage Works)	C. F. Hodgson, Esq., C.E.	5	1 0	172	..	23·75	134	115
D	Ilkley (Silverwell Cottage)	Surveyor, U.D.C.	5	1 0	900	..	36·51	183	146

DIVISION IX.—YORKSHIRE—(*con.*).

	STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
	WEST RIDING—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	10.—OUSE—Wharfe.—(*con.*).								
D	Ilkley (Spence's Garden)	Surveyor, U.D.C	5	1 0	314	..	34·22	180	131
D	Ilkley (Crossbeck Road)	Rev. W. Robinson	5	1 6	570	..	34·62	182	133
D	Ilkley (Ben Rhydding)	T. More, Esq.	5	1 0	315	..	31·82	168	129
	Leathley (Lindley Wood, S.)	H. Shortreed, Esq., C.E.	8	0 9	312	..	26·80	178	116
D	Ilkley (March Gill Reservoir)	C. F. Hodgson, Esq., C.E.	5	1 0	655	..	28·54	201	118
D	York (Chalfonts)	Arnold S. Rowntree, Esq.	5	0 9	50	..	25·14	146	109
d	York (Cherry Hill)	Messrs. H. Richardson & Co.	5	1 6	50	24·2	21·34	..	..
D	York (Acomb Landing)	W. H. Humphreys, Esq. C.E.	5	1 0	40	..	20·58	136	102
M	Skipton (Counter Hill)	L. Mitchell, Esq., C.E.	5	1 0	951	31·3	25·06?	..	..
M	Skipton (Chelker Reservoir)	L. Mitchell, Esq., C.E.	5	1 0	730	32·9	33·34	..	..
	Fewston (Timble Ings)	H. Shortreed, Esq., C.E.	8	0 9	912	..	33·62	185	132
	Fewston (Swinsty, East)	H. Shortreed, Esq., C.E.	8	0 9	460	..	26·58	159	107
	Fewston, North	H. Shortreed, Esq., C.E.	8	0 9	525	..	29·18	199	129
	Fewston (Blubberhouses)	H. Shortreed, Esq., C.E.	8	0 9	575	..	31·64	189	134
D	Bolton Abbey Estate Office	A. Downs, Esq.	5	1 2	368	..	33·25	188	145
D	Barden Reservoir	L. Mitchell, Esq., C.E.	5	1 0	746	42·9	42·90	206	158
M	Upper Barden Reservoir	L. Mitchell, Esq., C.E.	5	1 0	1170	40·6	38·53	..	..
	Thruscross (Lane Head)	H. Shortreed, Esq., C.E.	8	0 9	950	..	31·05	177	127
M	Burnsall (Thorpe Fell)	L. Mitchell, Esq., C.E.	5	1 0	1661	39·4	39·81	..	..
M	Burnsall (Sandbed Beck)	L. Mitchell, Esq., C.E.	5	1 0	676	42·2	41·87	..	..
D	Burnsall Rectory	Rev. Canon W. J. Stavert	8	4 6	504	..	41·04	181	143
D	Grimwith Reservoir	L. Mitchell, Esq., C.E.	5	1 0	893	44·9	42·28	211	164
M	Grimwith (Trunla Hill)	L. Mitchell, Esq., C.E.	5	1 0	1201	38·8	47·16	..	..
D	Buckden	G. E. Clayton, Esq.	5	3 0	800	..	53·33	188	156
D	Oughtershaw Hall	Miss G. J. Woodd	5	1 6	1175	..	71·25	221	171
	11.—OUSE—Nidd. 254 sq. mi.								
D	Wetherby (Stockeld Park)	G. R. Foster, Esq.	5	1 2	200	..	23·44	134	114
	Spofforth (Sewage Works)	C. E. Rivers, Esq., C.E.	5	1 0	184	..	24·88	164	115
D	Tockwith School	W. Kirk, Esq.	5	1 0	200	..	27·05	153	116
d	Wetherby (Ribston Hall)	Mr. W. Simpson	5	1 2	130	26·5	23·76	..	..
M	Harrogate W.W. (Ling Cottage)	A. S. West, Esq., C.E.	5	1 0	740	..	27·86	..	..
M	Harrogate W.W. (Broad Dubb)	A. S. West, Esq., C.E.	5	1 0	725	..	28·89	..	..
M	Harrogate W.W. (Cobblers Cott.)	A. S. West, Esq., C.E.	5	1 0	730	..	27·93	..	..
D	Harrogate W.W. (Ten Acres Res.)	A. S. West, Esq., C.E.	8	1 6	620	..	27·87	180	122
D	Harrogate W.W. (Scargill Res.)	A. S. West, Esq., C.E.	8	1 0	646	..	28·18	182	124
D	Harrogate W.W. (Beaver Dyke R)	A. S. West, Esq., C.E.	8	0 11	575	..	27·26	180	120
M	Harrogate W.W. (John o'Gaunts)	A. S. West, Esq., C.E.	5	1 0	600	..	28·29	..	..
M	Harrogate W.W. (Long Stoop)	A. S. West, Esq., C.E.	5	1 0	700	..	(28·48)	..	..
M	Harrogate W.W. (Knab's Moor)	A. S. West, Esq., C.E.	5	1 0	700	..	26·25	..	..
D	Harrogate (Harlow Moor Obsy.)	C. E. Rivers, Esq., C.E.	5	1 0	478	30·6	24·43	160	115
D	Harrogate (Harlow Hill Res.)	A. S. West, Esq., C.E.	8	1 0	589	..	25·65	166	114
D	Harrogate (Duchy Road)	J. S. Farrah, Esq.	5	1 0	450	..	26·33	168	120
D	Harrogate (Irongate Bridge Res.)	A. S. West, Esq., C.E.	8	1 6	455	..	27·72	165	121
D	Knaresborough (Goldsbro Hall Gdns)	Mr. R. Wilson	5	1 0	112	..	23·89	160	114
D	Knaresborough (The Abbey)	Rev. Canon J. T. Hartley	5	1 0	140	..	24·59	160	121
	Knaresborough (Water Tower)	A. S. West, Esq., C.E.	8	1 0	240	..	26·04	..	..
	Harrogate (Bilton Sewage Works)	C. E. Rivers Esq., C.E.	5	1 0	208	..	27·06	158	126
D	Nun Monkton	Miss Bagley	5	2 0	45	..	20·03	168	116
D	Birstwith Hall	Sir F. A. Aykroyd, Bt.	5	1 0	400	..	29·98	180	132
D	Birstwith (Swarcliffe)	Capt. C. S. Greenwood	5	1 0	510	..	28·65	166	126
	Ramsgill (Holme Ho. Gouthwaite)	L. Mitchell, Esq., C.E.	5	1 0	464	..	37·28	..	..
D	Ramsgill (Raygill House)	L. Mitchell, Esq., C.E.	5	1 0	925	48·0	42·63	173	154
D	Ramsgill	L. Mitchell, Esq., C.E.	5	1 0	450	39·4	40·45	159	148
D	Middlesmoor (Stean Moor)	Sir F. A. Aykroyd, Bart.	5	1 0	1100	..	49·02	164	154
M	Nidderdale (East Gill Head)	L. Mitchell, Esq., C.E.	5	1 0	1710	58·6	52·67	..	..
M	Nidderdale (Rain Stang)	L. Mitchell, Esq., C.E.	5	1 0	1470	48·6	43·44	..	..
D	Nidderdale (New Houses)	L. Mitchell, Esq., C.E.	5	1 0	755	45·3	41·09	160	144
D	Nidderdale (West Houses)	L. Mitchell, Esq., C.E.	5	1 0	1165	53·1	48·68	213	164

DIVISION IX.—YORKSHIRE—(*con.*).

	STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
	WEST RIDING—(*con.*)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	12.—OUSE—Ure. 110 sq. mi.								
	Dallow Moor (Harper Hill)	H. Shortreed, Esq., C.E.	8	0 9	858	..	30·81	..	133
D	Ripon (Studley Royal Gardens)	F. M. Sutherland, Esq.	5	1 0	250	..	27·24	156	110
D	Ripon (The Red House)	F. D. Wise, Esq., C.E.	5	1 0	120	..	26·30	169	128
	Kirby Malzeard (Drovers'Inn)	H. Shortreed, Esq., C.E.	8	0 9	576	..	35·09	181	124
	Kirby Malzeard (Hawsett)	H. Shortreed, Esq., C.E.	8	0 9	820	..	34·07	184	133
	Kirby Malzeard(Hambledon H.)	H. Shortreed, Esq., C.E.	8	0 9	1100	..	32·15	..	..
	Kirby Malzeard (BagwithBrae)	H. Shortreed, Esq., C.E.	5	0 9	703	..	30·04	174	113
	Kirby M.(Stone & EarsWham)	H. Shortreed, Esq., C.E.	8	0 9	1118	..	31·96	..	..
	EAST RIDING. (Area, 1,176 sq. mi.).								
	1.—OUSE—Left Bank Tributaries. 82 sq. mi.								
D	Osgodby (Fruit Testing Stn.)	J. W. Eves, Esq.	5	1 0	30	..	20·68	153	104
B	York (Heslington)	Hn.L.de Yarburgh-Bateson	8	1 0	39	..	25·07	174	123
D	York (Dunnington Hall)	Miss E. C. Hildyard	8	1 2	110	..	24·84	208	122
	2.—OUSE—Derwent. 248 sq. mi.								
D	Birdsall Gardens	Mr. J. Anderson	5	1 2	308	..	27·15	153	124
D	Westow Vicarage	Rev. G. T. W. Purchas	5	1 0	190	..	24·14	170	118
D	Rillington (Scampston Hall)	W. H. St. Quintin, Esq.	5	1 6	102	..	24·77	190	131
D	Ganton (Ganton Hall)	Harold Wrigley, Esq.	5	1 0	250	..	24·58	184	127
	3.—HUMBER—Left Bank Tributaries. 675 sq. mi.								
D	Spurn Head *New g.*	The Meteorological Office	8	1 0	29	24·0	18·67	149	102
d	Patrington (Rose Cottage)	The Meteorological Office	5	1 3	46	23·3	20·58	..	99
D	Patrington (The Rectory)	Rev. P. R. Frost	5	1 0	50	..	19·81	132	98
D	Hull (Pearson Park)	G. H. Copley, Esq.	5	0 10	8	25·4	21·05	170	108
D	Hull (Springhead)	W. D. Bingham, Esq.	5	1 0	16	..	21·70	166	108
	North Cave (The Croft)	Major W. H. Carver	8	1 6	35	..	21·61	..	..
D	Cottingham (Waterworks)	W. D. Bingham, Esq.	5	1 0	26	..	20·44	139	102
D	Holme-on-Spalding Moor	C. J. Pybus, Esq.	8	1 0	30	..	22·07	156	117
D	Beverley(E.Riding Mental Hosp.)	Medical Superintendent	5	1 0	175	..	22·87	154	99
	Beverley (New Walk)	W. Evans, Esq., C.E.	5	3 0	38	..	23·69	176	115
	Beverley (Hull Bridge)	W. Evans, Esq., C.E.	5	2 6	11	..	21·34	168	108
D	MarketWeighton(DaltonHolme)	J. P. Jobling Esq.	8	6 0	120	..	23·33	155	113
	Brandesburton (HempholmLk.)	W. Evans, Esq., C.E.	5	1 0	11	25·2	21·73	138	113
D	Driffield (Council School)	A. T. Jordan, Esq.	5	1 0	69	..	22·74	163	113
D	Lowthorpe (The Elms)	F. K Hawes, Esq.	5	1 0	63	26·5	20·52	160	103
	4.—EAST COAST STREAMS. 171 sq. mi.								
D	Bridlington (Corpn. Nurseries)	S. R. Crofts, Esq.	5	1 0	60	..	21·71	184	117
D	Bridlington (Grammar School)	The Headmaster	8	1 0	76	..	21·84	155	111
	Burton Fleming	C. B. Thomas, Esq.	5	0 4	128	..	23·61	..	..
D	Ganton (Willerby Wold)	Major W. F. Wormald	5	0 9	565	..	19·18	160	111
D	Filey Vicarage	Rev. Canon A. N. Cooper	8	1 0	96	..	21·22	169	117
	NORTH RIDING. (Area, 2,155 sq. mi.)								
	1.—OUSE—Ure. 273 sq. mi.								
D	West Tanfield Rectory	Mr. H. H. Milman	5	1 0	150	28·7	27·38	161	120
D	Masham Moor (Roundhill Res.)	A. S. West, Esq., C.E.	8	1 0	743	37·6	34·99	199	140
	Masham Moor (Somerside)	H. Shortreed, Esq., C.E.	5	0 9	928	38·8	32·74	183	146
	Masham Moor (High Sour Mire)	H. Shortreed, Esq., C.E.	5	0 9	884	31·2	34·33	..	..
	Masham Moor (Leighton Res.)	H. Shortreed, Esq., C.E.	5	0 9	634	35·9	31·27	203	145
	Masham Moor (Towler Hill)	H. Shortreed, Esq., C.E.	8	0 9	820	36·7	32·43	210	140
	Masham Moor (Breary Bank)	H. Shortreed, Esq., C.E.	5	0 9	600	36·8	34·98	210	148
	Masham Moor (Healey Pasture)	H. Shortreed, Esq., C.E.	5	0 9	620	36·1	33·18	208	139
	Masham Moor (Low Houses)	H. Shortreed, Esq., C.E.	5	0 9	693	37·9	34·22	208	151

DIVISION IX.—YORKSHIRE—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
NORTH RIDING—(*con.*)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—OUSE—Ure—(*con.*).								
D Clifton Castle Gardens	Lady Cowell	5	1 0	360	29·9	26·68	133	107
Middleham (Cotescue)	A. Rowntree, Esq.	5	1 0	600	..	25·12	152	120
D Middleham (Castle Hill)	Col. P. H. Hammond, C.B.	5	1 0	370	31·7	25·82	159	115
D West Burton (Flanders Hall)	G. T. Whitehead, Esq.	5	2 2	500	..	33·51	137	130
D West Witton (Ivy House)	J. B. Espiner, Esq.	5	1 0	605	34·1	30·14	181	127
Leyburn (Spennithorne)	F. M. Curtis, Esq.	5	1 0	416	..	25·38	..	..
D Leyburn (Bolton Hall)	Mr. F. Scrivener	8	1 0	420	32·6	29·78	191	119
D Askrigg (Worton)	Rev. W. M. Atkinson	5	1 0	700	..	35·70	191	142
d Hawes (The Stone House)	Late H. Arden Crallan, Esq.	5	1 6	845	50·0	48·56	..	..
2.—OUSE—Swale. 569 sq. mi.								
D Dalton Parsonage	Rev. G. H. Chilman	5	1 0	79	23·0	24·55	147	114
d Coxwold (The Old Hall)	H. Geipel, Esq.	4	1 6	260	26·1	25·53	..	120
Burniston (Camp Hill) ... (R)	Capt. F. H. Reynard	8	3 6	152	23·7	19·28	..	..
D Thirsk (Sowerby)	Mrs. W. Brown	5	0 11	110	24·7	23·84	146	122
D Thirsk (Brynkellhow)	A. B. Hall, Esq.	8	1 0	150	24·6	21·95	169	123
D Thirsk (Stoneybrough)	T. J. Foggitt, Esq.	5	1 2	122	24·7	24·15	166	117
M Felixkirk (Thirlby)	A. J. Walker, Esq.	5	1 0	339	27·1	26·16	..	..
D Felixkirk (Mount St. John) (+A)	A. J. Walker, Esq.	5	1 0	541	25·8	26·62	182	135
D Felixkirk (Mount St. John)	A. J. Walker, Esq.	5	1 0	541	26·5	25·55	181	134
D Boltby (Ravensthorpe Manor)	F. E. Walker, Esq.	5	1 7	661	27·4	24·51	178	127
M Boltby, East	A. J. Walker, Esq.	5	1 0	460	26·2	27·59	..	..
M Boltby (High Paradise)	A. J. Walker, Esq.	5	1 3	1144	..	31·67	..	..
D Bedale (The Hermitage)	C. Clarke, Esq., F.S.I.	5	0 10	465	..	23·79	141	116
D Maunby Hall	Major A. Hill-Walker, V.C.	5	1 0	90	23·9	22·39	135	116
D Bedale (Park House)	Miss M. Greenwood	5	1 1	180	25·6	24·76	150	114
Scruton Hall	A. Coore, Esq.	5	1 6	100	23·8	20·62	158	110
D Northallerton (Brompton)	J. P. Yeoman, Esq.	5	1 0	150	23·7	23·33	191	130
Osmotherly (Oakdale W.W.)	The Surveyor, U.D.C.	5	1 0	600	..	25·19	..	..
d East Harlsey (Harlsey Hall)	Mrs. Constantine	5	1 0	370	..	21·32	..	117
d Richmond (C.E. School)	R. Hornby, Esq.	5	1 0	360	..	23·62	..	..
D Reeth (Arkengarthdale)	Samuel Gott, Esq.	5	1 0	940	41·0	35·42	151	134
D Rounton Grange	Sir Hugh Bell, Bt.	8	0 9	249	25·6	23·81	176	130
w Middleton Tyas	Mr. C. H. Butler	5	0 10	380	25·7	23·00	..	..
3.—OUSE—Left Bank Tributaries. 153 sq. mi.								
D York (Museum Gardens)	W. Watson, Esq.	5	1 0	57	24·3	22·82	167	116
d Stockton-on-Forest (Stockton Hall)	Mrs. Lloyd	5	1 1	30	21·5	21·56	..	106
Haxby (Moorlands)	E. G. Tew, Esq.	6	1 0	59	24·1	21·49	..	..
D Crayke Rectory	Rev. T Catton	5	1 0	201	..	20·08	128	98
4.—OUSE—Derwent. 509 sq. mi								
d Welburn	R. Child, Esq.	5	1 0	190	26·1	23·41	..	..
D Malton (Broughton Rise)	C. C. Laverack, Esq.	5	1 0	164	25·5	24·26	167	126
D Hovingham Hall	Capt. W. A. Worsley	5	0 9	119	29·0	28·41	179	141
D Ampleforth College	The Procurator	5	1 0	350	27·2	24·10	178	134
D Oswaldkirk (Layesthorpe Hall)	Major G. B. Foster	5	1 0	231	..	25·26	171	133
D Helmsley (Boys' School)	E. W. Williams, Esq.	5	1 0	225	..	27·75	171	138
D Pickering (Hungate Hall)	Dr. J. L. Kirk	5	3 0	90	26·8	23·06	160	129
D Seamer (Irton Pump. Station)	H. Richardson, Esq., C.E.	8	1 0	94	28·7	20·72	144	119
D Scarborough (Osgodby)	H. Richardson, Esq., C.E.	8	1 0	166	26·1	22·77	139	126
D East Ayton (Derwent House)	A. H. Robinson, Esq.	5	1 0	110	27·0	23·01	160	131
d Kirkby Moorside (Ravenswyke)	Harrison Holt, Esq.	5	1 0	270	27·2	25·93	..	116
D Thornton Dale (High Dalby Ho.)	J. A. Coulson, Esq.	5	1 0	325	..	24·52	153	129
5.—ESK & C. 278 sq. mi.								
D Scarborough	Medical Officer of Health.	5	1 1	118	25·8	21·28	174	126
D Scarborough (Scalby)	Capt. W. H. L. Wordsworth	5	1 0	210	..	21·69	160	122
D Scarborough (Scalby, St. Philips)	Rev. W. E. Stewart	5	1 0	130	26·1	20·79	159	113
M Goathland (Thwaitefield)	L. G. Rowland, Esq.	5	1 0	485	..	25·72	..	..
D Egton Bridge (Bridgeholme)	Lt.-Col. R. Astley Smith.	5	1 0	150	33·3	30·66	158	136
D Glaisdale (The Gables Gardens)	Mr. H. Hope	5	0 9	400	35·6	32·42	135	126

DIVISION IX.—YORKSHIRE—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with .01 in. or more.	Days with .04 in. or more.
NORTH RIDING—(*con.*)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
5.—ESK & C.—(*con.*).								
D Sleights (The Hall)	P. M. Horsfall, Esq.	5	1 0	220	30·7	25·66	148	122
D Danby (The School House)	J. W. Lynas, Esq.	5	1 0	500	35·2	31·92	170	145
D Castleton	Miss M. H. Punch	5	1 0	425	..	28·93	187	140
D Danby Lodge	Mr. C. Hardy	5	1 0	500	35·6	31·24	154	137
D Whitby (Park Hall, Aislaby)	Rev. J. H. Richardson	5	1 0	500	30·7	25·35	182	128
D Whitby (Westthorpe)	Rev. M. A. C. Horsfall	6	1 6	100	..	23·26	187	129
D Whitby (Mulgrave Castle)	Mr. J. Corbett	5	1 0	410	29·1	25·89	186	129
D Guisborough (Lockwood Res.)	Cleveland Water Co.	8	1 0	632	33·0	28·74	214	143
D Saltburn (Skelton Castle)	Col. W. H. A. Wharton	5	0 9	272	28·1	23·63	189	143
6.—TEES. 373 sq. mi.								
D Ingleby Manor	Lord DeL'Isle & Dudley	5	1 2	460	33·9	28·26	180	133
D Kildale Hall	Major R. B. Turton	5	1 2	600	35·5	29·11	175	145
D Crathorne Hall Gardens	J. L. Dugdale, Esq.	5	1 3	107	25·0	22·42	157	120
D Barningham Park	Sir F. Milbank, Bart.	8	1 0	700	32·6	29·65	182	131
D Nunthorpe (The Box)	G. D. Cochrane, Esq.	5	1 0	287	25·2	21·69	176	120
D Marton-in-Cleveland (Southcroft)	R. Theodore Wilson, Esq.	5	0 11	100	..	20·20	159	111
D Marton-in-Cleveland (Gartheen)	G. R. Collinson, Esq. C.E.	5	1 0	160	..	19·54	158	107
D Middlesbrough (Albert Park)	R. Sutcliffe, Esq.	5	1 0	30	23·7	20·31	151	115
d Middlesbrough (Dorman Mus.)	The Curator	5	..	30	23·3	18·44	..	..
M Baldersdale (Aygill)	G. R. Collinson, Esq., C.E.	5	1 0	1250	45·0	41·70	..	..
M Baldersdale (Blackton Res.)	G. R. Collinson, Esq., C.E.	5	1 0	937	40·5	37·70	..	..
M Baldersdale (Balderhead)	G. R. Collinson, Esq., C.E.	5	1 0	1360	45·7	42·80	..	..
M Lunedale (Dow Crag)	G. R. Collinson, Esq., C.E.	5	1 0	1720	56·0	55·70	..	..
M Lunedale (Lunehead)	G. R. Collinson, Esq., C.E.	5	1 0	1450	55·6	53·20	..	..
M Lunedale (Selset)	G. R. Collinson, Esq., C.E.	5	1 0	924	40·8	37·30	..	..
D Lunedale (Grassholme Res.)	G. R. Collinson, Esq., C.E.	5	1 0	936	39·7	34·88	185	146
M Lunedale (Keekham)	G. R. Collinson, Esq., C.E.	5	1 0	1660	59·5	58·70	..	..
M Lunedale (Hargill)	G. R. Collinson, Esq., C.E.	5	1 0	1320	53·4	50·70	..	..

DIVISION X.—NORTHERN COUNTIES.

DURHAM. (Area, 1,011 sq. mi.)

1.—TEES & C. 396 sq. mi.								
D Darlington (South Park)	T. J. Morrison, Esq.	5	1 0	150	27·1	21·80	175	124
D Darlington (Broken Scar)	G. R. Collinson, Esq. C.E.	5	1 0	158	..	20·94	171	119
D Darlington (Stanhope Road)	Rev. A. W. M. Close	5	1 0	180	27·2	23·18	165	123
d Darlington (Hummersknott)	J. Short, Esq.	5	1 0	200	25·6	21·03	152	117
D Egglescliffe	Capt. A. B. Hutton Wilson	8	1 2	100	24·0	23·43	155	121
D Barnard Castle (Bowes Museum)	S. E. Harrison, Esq.	6	1 0	500	30·4	25·29	168	122
D Barnard Castle (County School)	C. W. Watson, Esq.	5	1 6	540	29·1	25·31	161	119
D Long Newton Reservoir	G. R. Collinson, Esq. C.E.	5	1 0	184	..	21·33	177	115
D Stockton-on-Tees (Hartburn Lo.)	C. Nielson, Esq.	5	0 10	40	24·4	20·81	168	118
D Stockton-on-Tees (Ropner Park)	W. A. Jenkins, Esq.	5	1 9	61	22·9	19·86	157	109
D Stockton-on-Tees (Billingham)	S. Ammonia & Nitrates, Ld.	5	1 6	35	..	18·60	142	103
D Middleton-in-Teesdale (Newbiggin)	R. Coggins, Esq.	5	1 2	1000	40·9	39·08	204	151
D Ferryhill (Winterton)	Medical Superintendent	5	1 0	365	26·6	21·77	148	126
D Hurworth Burn (Crookfoot Res.)	J. R. Bradshaw, Esq.	10	1 6	296	25·4	20·18	182	111
d West Hartlepool (Waterworks)	J. R. Bradshaw, Esq.	10	1 0	35	24·7	19·40	(158)	(93)
D Hurworth Burn Reservoir	J. R. Bradshaw, Esq.	10	1 0	357	26·5	20·48	182	116
D Hartlepool (Hart Reservoir)	J. R. Bradshaw, Esq.	10	1 0	172	..	20·06	174	114
D Shotton (New Winning P. S.)	A.B.E.Blackburn,Esq.C.E.	8	1 0	402	29·4	22·20	180	130
D Easington (Mill Hill Res.)	A.B.E.Blackburn,Esq.C.E.	8	1 0	521	..	21·93	191	133
D Seaham (Dalton Pumping Sta.)	A.B.E.Blackburn,Esq.,C.E.	8	1 0	345	27·0	22·89	182	127
2.—WEAR—464 sq. mi.								
Wolsingham (Dryderdale)	Mrs. Cranston	5	1 3	700	..	24·68	..	..
d Stanhope (Parson Byers Qy.)	Messrs. Dorman, Long & Co., Ltd.	5	6 8	846	31·7	27·75	..	..
M Burnhope (Grass Meres)	H. Robinson, Esq., C.E.	5	1 3	1850	59·1	46·45	..	..
M Burnhope (Lodgegill Mine)	H. Robinson, Esq., C.E.	5	1 3	1950	61·4	55·75	..	..
D Burnhope Bridge	H. Robinson, Esq., C.E.	5	1 0	1200	51·6	43·95	201	155
M Cowshill (Wellheads Hush)	H. Robinson, Esq., C.E.	5	1 6	1690	52·7	44·60	..	..
D Durham (Houghall Hort. Sta.)	W. S. Sharp, Esq.	5	1 0	160	27·9	20·71	137	112
D Durham Observatory	F. Sargent, Esq.	8	1 0	336	24·6	20·18	175	115
D Ushaw (St. Cuthbert's College)	Rev. J. R. Adamson	5	1 0	600	28·2	23·79	158	121

DIVISION X.—NORTHERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
DURHAM—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—WEAR—(*con.*).								
M Weardale W.W.	(Waskerley 6) H. Robinson, Esq., C.E. ..	8	4 2	1229	..	22·03	..	..
M Weardale W.W.	(Waskerley 3). H. Robinson, Esq., C.E. ..	8	4 6	1433	..	22·75	..	..
D Weardale W.W.	(Waskerley) .H. Robinson, Esq., C.E. ..	8	0 11	1179	33·1	25·48	203	140
M Weardale W.W.	(Waskerley 1). H. Robinson, Esq., C.E. ..	8	4 4	317	..	21·65	..	..
d Chester-le-Street	(Biddick Hall 1) Mr. J. Fletcher	5	1 0	150	27·7	(22·53)	..	..
D Consett	(Crookhall).....H. Shackleton, Esq.....	5	1 0	642	..	23·43	130	111
D Ryhope Pumping Station	.....A.B.E.Blackburn, Esq., C.E.	8	1 1	228	25·4	21·80	179	123
D Sunderland	(W. Hendon H.) No. 5. Mrs. W. A. Mounsey.....	5	1 0	130	25·6	23·05	171	127
D Sunderland	(Mowbray Pk) (+A) Dr. A. Stuart-Hebblethwaite	5	1 0	105	25·6	21·23	159	117
D Southwick	Cemetery .....J. Burdis, Esq.	8	1 0	171	..	24·54	158	113
3.—TYNE, LOWER. 151 sq. mi.								
D Weardale W. W.	(Hisehope Res.) H. Robinson, Esq. C.E....	5	1 0	1450	..	26·85	221	141
D Weardale W.W.	(Smiddy Shaw) H. Robinson, Esq., C.E. ..	8	1 3	1128	34·1	27·49	196	139
D Consett Park Farm	.....T. Hutton, Esq., C.E.	8	0 7	630	..	21·41	150	113
D Rowlands Gill	(Chopwellwood). Capt. A. D. Hopkinson ...	8	1 0	446	28·7	23·39	176	129
D Sunderland	(Cleadon Pump. Stn.) A.B.E.Blackburn, Esq., C.E.	8	1 0	216	24·4	21·66	166	111
d Ryton-on-Tyne	(Balgonie House) A. Smith, Esq., M.D.	6	1 2	258	26·5	23·20	..	..
D South Shields	(Bent's Park) ...Dr. W. Campbell Lyons...	5	1 0	36	24·2	24·20	187	130
D South Shields	(South Pier Wks.) R. F. Hindmarsh, Esq., C.E.	5	1 0	17	..	19·35	165	110
NORTHUMBERLAND. (Area, 2,015 sq. mi.)								
1.—EDEN. 20 sq. mi.								
2.—SOUTH TYNE. 232 sq. mi.								
d Allenheads	.....J. W. Metcalfe, Esq.....	8	1 0	1350	..	38·40	..	..
3.—TYNE, LOWER. 227 sq. mi.								
D Corbridge (Howden Dene)	....T. D. Straker-Smith, Esq..	5	1 0	200	27·3	22·65	172	123
D Newcastle (Leazes Park)	.....W. J. Steele, Esq.	5	1 0	255	26·4	23·05	151	109
D Newcastle (Deaf & Dumb Inst.)	The Superintendent	5	1 3	201	27·2	19·80	153	109
D Newcastle (Wellburn, Jesmond)	J. H. Holmes, Esq., C.E. ..	5	1 3	163	26·8	20·64	143	114
D Hexham (Causey Hill)	.....R. W. Gregory, Esq.	5	1 2	450	..	22·55	140	108
d Hexham (Beaufront Castle)	...The Lady Rayleigh.....	8	1 0	450	27·6	21·66	..	..
d Wallsend (Carville School)	.....G. R. Pattison, Esq.	5	1 3	100	..	20·75	..	..
D Tynemouth (Tyne Pier Works)	.R. F. Hindmarsh, Esq., C.E.	5	1 0	54	25·1	20·46	163	115
D Tynemouth (C.G. Sta.)	*New g.* .The Meteorological Office..	8	1 0	67	26·1	22·79	179	122
D Whittle Dene Filters (N'stle W.W.)	A. Hardcastle, Esq., C.E...	5	1 1	353	26·6	21·42	193	113
D Whittle Dene Res. (Newc. W.W.)	A. Hardcastle, Esq., C.E...	5	0 6	380	25·3	21·53	179	112
4.—NORTH TYNE. 433 sq. mi.								
Ryal Cottage (Newcastle W.W.)	.A. Hardcastle, Esq., C.E...	10	0 9	463	29·1	23·88	..	..
Hallington Vill. (N'castle W.W.)	A. Hardcastle, Esq., C.E...	5	1 0	467	29·9	23·80	..	..
D Hallington Res. (N'castle W.W.)	A. Hardcastle, Esq., C.E...	5	1 0	470	29·2	24·88	185	133
Hallington (Fawcett) (Newc. W.W)	A. Hardcastle, Esq., C.E...	5	1 2	537	28·2	24·80	..	..
Hallington (Cheviott) (Newc. W.W)	A. Hardcastle, Esq., C.E..	5	1 2	576	27·8	23·94	..	..
Camphill (Newcastle W.W.)	...A. Hardcastle, Esq., C.E...	5	1 0	650	29·4	26·36	..	..
D Colt Crag Res., (N'castle W.W.)	A. Hardcastle, Esq., C.E...	5	1 0	654	28·2	26·29	176	141
Green Crag (Newcastle W.W.)	A. Hardcastle, Esq., C.E...	5	1 0	900	30·1	27·60	..	..
D Falstone Rectory	.....Rev. A. J. Dexter	5	1 0	485	38·6	35·37	195	150
D Bellingham (High Green Man.)	.Sir C. Morrison-Bell, Bt. .	5	1 0	849	35·4	31·77	191	154
D Redewater (Catcleugh)	.....A. Hardcastle, Esq., C.E...	5	1 0	819	40·2	42·24	216	170
5.—COQUET & C. 840 sq. mi.								
Whittington (Newcastle W.W.)	A. Hardcastle, Esq., C.E...	8	0 9	528	28·1	23·76	..	..
Burnside (Newcastle W.W.)	...A. Hardcastle, Esq., C.E...	5	0 9	419	27·2	22·99	..	..
d Kirkwhelpington	.....J. R. Wardle, Esq.....	5	1 3	581	..	28·09	..	..
D Morpeth (Ashington)	.....J. Gray, Esq.	5	8 0	110	25·3	23·04	166	120
D Morpeth (Cockle Park)	.....Northumberland Co. Council	8	1 0	325	29·3	24·98	166	120
D Font Res. (Tynemouth W. W.)	.J. W. McKerrow, Esq. ...	10	1 2	620	31·1	28·91	209	137

DIVISION X.—NORTHERN COUNTIES—(*con.*).

	STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
	NORTHUMBERLAND—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	5.—COQUET & C.—(*con.*).								
	Long Horsley (Ghyllheugh)	S. J. Redpath, Esq.	5	1 0	250	30·8	27·20	..	..
	Long Framlington (Embleton H.)	J. C. Fenwick, Esq.	5	0 9	430	30·3	26·96	..	..
d	Acklington (Broomhill Colliery)	A. M. Morrison, Esq.	5	1 0	92	24·9	30·62?	..	..
D	Alnmouth (Nether Grange)	Miss E. Pease, J.P., O.B.E.	5	1 6	40	26·2	23·96	147	114
D	Howick Hall Gardens	Mr. J. Wright	8	0 10	121	28·2	28·26	175	122
D	Belford (Newlands)	C. H. Sanderson, Esq.	5	3 10	130	..	24·63	163	108
	6.—TWEED. 262 sq. mi.								
D	Wooperton	Mrs. Burdon	6	1 6	..	30·0	29·71	154	132
d	Kirknewton (Coldburn)	Mrs. Cowe	5	0 10	1052	42·4	28·08	..	..
	Ilderton (Lilburn Tower)	Mr. W. Lovett	10	6 0	300	27·9	26·39	170	129
D	Ilderton (Lilburn Tower Gdns.)	Mr. W. Lovett	5	1 0	250	31·0	28·45	172	133
d	Wooler (Victoria House)	Miss E. M. Dodds	5	1 0	176	26·8	26·46	..	..
	Mindrum (Thornington House)	Leonard Briggs, Esq.	5	..	..	28·6	25·56	..	..
D	Berwick-on-Tweed (Ramparts)	S. Hill, Esq.	5	1 0	76	23·4	21·81	155	105
	7.—INSULAR. 1 sq. mi.								
	CUMBERLAND. (Area, 1,516 sq. mi.)								
	1.—EDEN & SOLWAY. 887 sq. mi.								
D	Ullswater (Hallsteads)	Mrs. F. Thomasson	5	1 0	497	..	55·92	182	153
D	Watermillock (Mell Fell House)	Mrs. Spring-Rice	5	1 6	970	..	49·42	172	141
D	Penrith (Hutton John)	F. Hudleston, Esq., C.E.	5	1 0	688	..	44·85	189	139
D	Penrith (Briar Cottage)	H. Lester, Esq.	5	1 0	575	32·8	29·85	174	125
D	Penrith (Laurel Bank)	A. B. Sinclair, Esq.	5	1 0	480	..	33·71	177	136
D	Penrith (Newton Rigg)	Cumberland County Council	8	1 0	560	36·4	38·30	184	135
D	Uldale (Chapel House Res.)	J. Strong, Esq.	8	1 0	620	..	46·10	200	159
D	Penrith (Nunwick Hall)	R. Heywood Thompson, Esq.	5	1 0	268	..	31·50	175	128
D	Penrith (Ennim)	Lt.-Col. H. L. Riley, DSO, OBE	5	1 0	660	..	39·14	169	136
D	Mealsgate (Quarry Hill)	J. R. Watters, Esq.	8	1 0	481	40·4	39·82	204	150
M	Allonby	W. H. Williamson, Esq., J.P.	5	1 0	25	..	32·70	..	..
D	Renwick (Ravenwood)	W. Salkeld, Esq.	5	4 0	750	..	38·30	194	167
D	Ainstable (Heather Glen)	A. Guthrie-Smith, Esq.	5	1 6	500	..	32·83	194	139
D	Wigton (Brookfield)	David W. Reed, Esq., B.Sc.	5	1 0	124	..	30·68	166	134
D	Wreay Vicarage	Rev. Canon A. R. Hall	5	1 0	310	31·8	30·70	185	137
d	Silloth	Miss A. P. Farries	5	1 0	27	..	30·07	..	..
D	Geltsdale	P. Dalton, Esq., C.E.	5	1 2	778	..	36·05	210	145
D	Carlisle (Spital Cemetery)	L. C. Collett, Esq.	8	1 1	114	31·8	32·66	175	134
	Carlisle (Denton Holme)	W. Eggleston, Esq.	5	1 0	57	..	30·52	..	..
D	Carlisle (Rose Hill)	Henry Lonsdale, Esq.	8	1 1	105	..	34·63	175	136
d	Carlisle (Scaleby Hall)	Lady Allison	5	1 0	111	33·7	33·84	179	135
	2.—DERWENT. 257 sq. mi.								
M	Stye Head B *old* G	T. Bainbridge, Esq.	4	0 6	1077	..	170·39	..	..
M	Stye Head B *new* G	T. Bainbridge, Esq.	5	1 6	1070	..	(181·33)	..	..
M	Borrowdale (Seathwaite)	The Meteorological Office.	4	0 9	422	129·5	136·52	..	..
	Borrowdale (Seathwaite) garden.	The Meteorological Office.	5	1 6	423	..	(135·33)	..	..
M	Ullscarf	L. Holme Lewis, Esq., C.E.	5	1 0	2100	115·1	139·50	..	..
‡	Helvellyn (Birkside)	L. Holme Lewis, Esq., C.E.	5	1 0	1900	80·4	98·70	..	..
M	Wythburn	L. Holme Lewis, Esq., C.E.	5	1 0	610	..	109·80	..	..
D	Rosthwaite (The Moraine)	G. Scott, Esq.	5	1 0	330	..	105·45	198	178
‡	Armboth Fells (The Pewitts)	L. Holme Lewis, Esq., C.E.	5	1 0	1650	82·9	96·60	..	..
‡	Helvellyn (Whiteside)	L. Holme Lewis, Esq., C.E.	5	1 0	2100	75·9	91·70	..	..
D	Buttermere (Hassness)	E. Dixon, Esq.	6	1 0	350	..	105·42	209	194
M	Crummock Water (Llanthwaite Grn.)	R. W. Hall, Esq.	5	1 0	510	..	72·11	..	..
	Thirlmere (Dale Head Hall)	L. Holme Lewis, Esq., C.E.	6	1 0	620	78·7	91·30	..	..
D	Keswick (Lingholm Gardens)	J. Elson, Esq.	5	1 0	300	..	69·18	196	167
D	Keswick (Derwent Island) *old g.*	C. E. Marshall, Esq.	5	0 9	280	..	64·17	197	168

‡ Gauge over-exposed on Moor.

DIVISION X.—NORTHERN COUNTIES—(*con.*).

	STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
	CUMBERLAND—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	2.—DERWENT—(*con.*).								
D	Keswick (Derwent Island) *new g.*	C. E. Marshall, Esq.	5	1 0	290	57·0	57·08	197	167
D	Keswick (High Hill)	T. Wilson, Esq.	5	1 0	254	..	55·15	196	156
D	Portinscale (High Moss)	Mrs. J. E. Brown	5	1 0	285	..	63·01	192	162
D	Keswick (Mirehouse)	Miss Spedding	5	1 6	280	..	49·19	182	145
D	Workington (Stainburn Res.)	The Borough Surveyor	5	1 0	180	..	42·16	182	143
D	Threlkeld (Blencathra Sanat.)	Dr. E. Garrigan	5	1 0	885	..	55·25	180	162
M	Cockermouth (Castlegate Drive)	R. W. Hall, Esq.	5	0 8	208	..	43·90	..	..
	Camerton Vicarage	Rev. E. C. Bennett	5	1 0	200	..	39·76	..	..
D	Bassenthwaite (Higham)	G. F. Fisher, Esq.	5	0 9	500	..	42·87	186	164
	3.—WEST COAST STREAMS. 235 sq. mi.								
	Ravenglass (The Grove)	Walter Marchant, Esq.	5	1 0	70	42·5	48·12	188	153
D	Eskdale Green (Gatehouse)	Mr. J. W. Rainbow	5	1 2	300	..	64·19	204	177
D	Beckfoot (Eskdale Vicarage)	Rev. F. K. Berry	5	1 0	169	..	71·14	200	184
	Braystones	H. H. Watson, Esq.	10	3 6	36	..	44·91	..	..
M	Egremont (Lank Rigg)	J. Sherwen, Esq.	5	1 0	1750	..	84·10	..	..
D	St. Bees (Bickerley House)	Lt.-Col. G. Dixon	5	1 0	60	..	45·81	190	151
D	Whitehaven (Stanley Pond)	Whitehaven Colliery Co., Ltd.	12	2 11	45	..	54·88	175	156
D	Whitehaven (Scragill Reservoir)	C. A. Wilson, Esq., C.E.	8	1 0	188	..	50·64	190	157
D	Workington (Winscales House)	Miss E. W. Trench	5	1 6	440	..	39·53	189	149
	4.—DUDDON & C. 50 sq. mi.								
	5.—SOUTH TYNE. 87 sq. mi.								
D	Alston Vicarage	Rev. N. A. Walton	5	1 0	940	..	40·16	197	154
	WESTMORLAND. (Area, 783 sq. mi.)								
	1.—EDEN. 373 sq. mi.								
D	Kirkby Stephen (Eden Place)†	Mrs. Paul Mason	5	1 0	574	42·3	40·92	186	146
	Wasdale Pike	L. Holme Lewis, Esq., C.E.	5	1 0	1825	..	76·24	..	..
	Mosedale (Mosedale Cottage)	L. Holme Lewis, Esq., C.E.	5	1 0	1443	..	87·88	..	..
	Wet Sleddale (Mirethwaite)	L. Holme Lewis, Esq., C.E.	5	1 0	990	..	67·31	..	..
	Blea Water	L. Holme Lewis, Esq., C.E.	5	1 0	1465	..	96·65	..	..
	Mardale (Grove Brae)	L. Holme Lewis, Esq., C.E.	5	1 0	802	..	85·85	..	..
	Shap (Birkbeck Fell)	L. Holme Lewis, Esq., C.E.	5	1 0	935	..	57·57	..	..
	Swindale Parsonage	L. Holme Lewis, Esq., C.E.	5	1 0	875	..	75·65	..	..
	Swindale Head	L. Holme Lewis, Esq., C.E.	5	1 0	1025	..	65·14	..	..
	Grizedale (Ruthwaite Lodge)	Late W. H. Marshall, Esq.*	8	1 6	1250	..	(92·78)	..	..
	Mardale (Low Raise)	L. Holme Lewis, Esq., C.E.	5	1 0	2465	..	93·41	..	..
	Shap (Thornship Gill)	L. Holme Lewis, Esq., C.E.	5	1 0	865	..	57·72	..	..
	Shap (Tailbert Head)	L. Holme Lewis, Esq., C.E.	5	1 0	1100	..	56·75	..	..
D	Stainmore (Rampson) *new gauge.*	Capt. T. W. Bracken	5	1 0	980	..	39·98	202	160
	Hawes Water (Boulderstone Nab)	L. Holme Lewis, Esq., C.E.	8	1 0	744	..	75·05	..	..
	Hawes Water (Naddle House)	L. Holme Lewis, Esq., C.E.	5	1 0	825	..	62·67	..	..
	Hawes Water (Measand)	L. Holme Lewis, Esq., C.E.	5	1 0	824	..	73·12	..	..
	Measand Beck (Keasgill)	L. Holme Lewis, Esq., C.E.	5	1 0	1862	..	56·64	..	..
	Patterdale Hall	Late W. H. Marshall, Esq.*	5	1 3	490	86·4	92·64	..	189
d	Patterdale (Greenside Mine)	Matthew Place, Esq.	7	1 6	1000	..	95·15	196	187
	Bampton (Low Kop)	L. Holme Lewis, Esq., C.E.	5	1 0	1876	..	55·42	..	..
	Bampton (Walmhow)	L. Holme Lewis, Esq., C.E.	5	1 0	615	..	43·06	..	..
	Bampton (Stanegarth)	L. Holme Lewis, Esq., C.E.	5	1 0	913	..	58·87	..	..
	Cawdale Beck (Howe Grain)	L. Holme Lewis, Esq., C.E.	5	1 0	1642	..	63·88	..	..
	Heltondale (Kidmoor)	L. Holme Lewis, Esq., C.E.	5	1 0	984	..	50·37	..	..
D	Appleby (Castle Bank)	Lady Holmes	5	0 9	440	35·0	36·55	191	151
	Ullswater (Sharrow Bay)	Mr. G. Robinson	5	1 0	600	..	46·83	..	..

* *Per* Miss Cordelia Marshall. † Formerly known as Redman Ho.

DIVISION X.—NORTHERN COUNTIES—(*con.*).

	STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
	WESTMORLAND—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	1.—EDEN—(*con.*).								
D	Morland	F. R. Markham, Esq.	5	1 0	455	..	34·76	161	129
	Morland Hall	W. G. Shorrock, Esq.	5	1 0	475	..	31·57	..	..
D	Penrith (Lowther Castle)	Mr. J. Jeffrey	5	1 0	760	37·2	40·78	176	141
D	Cliburn (Council School)	L. S. Chapman, Esq.	5	1 0	420	..	39·48	149	125
D	Penrith (Barton House)	Mrs. Legh Tolson	5	0 8	500	..	42·77	192	138
D	Temple Sowerby (The Grange)	Col. E. B. Burton	5	1 1	370	..	29·74	162	124
	2.—LEVEN. 60 sq. mi.								
d	Bowness (Dawstone)	W. H. Milne, Esq.	5	1 2	550	63·1	(72·63)	..	..
D	Windermere (Nurseries)	The Lakeland Nurseries, Ltd.	5	1 5	350	..	66·38	194	168
D	Windermere (Hammar Bank)	Mrs. H. Coutts	5	1 0	200	..	68·88	201	172
D	Windermere (Holehird)	H. L. Groves, Esq.	5	1 0	483	72·7	74·71	224	184
D	Windermere (Brockhole)	W. Gaddum, Esq.	5	1 6	175	..	69·66	209	177
D	Ambleside (Wansfell)	Miss Wrigley	8	1 0	150	..	75·22	206	177
M	Little Langdale (Fell Foot)	Miss C. Marshall	5	2 2	380	..	111·81	..	..
D	Ambleside (White Craggs)	C. H. Hough, Esq.	5	1 7	200	..	76·62	191	176
D	Ambleside (Market Square)	G. A. Johnston, Esq., M.D.	5	1 0	180	..	79·51	207	183
	Elterwater (Eltermere)	Miss C. Marshall	5	1 0	205	..	93·21	..	195
D	Rydal (The Stepping Stones)	Gordon G. Wordsworth, Esq.	5	1 3	190	85·0	85·99	211	182
D	Rydal	Miss M. Yates	5	0 7	390	..	89·54	211	187
D	Rydal (High Close)	F. E. T. Jones Balme, Esq.	8	0 9	553	83·3	84·35	203	175
D	Rydal (The Hall)	R. E. Porter, Esq.	5	1 0	354	..	89·50	215	178
	New Dungeon Ghyll Hotel	Miss C. Marshall	5	1 1	310	..	112·31	..	..
	Mickelden	Miss C. Marshall	5	1 6	490	..	131·65	..	..
D	Grasmere (The Wray)	Miss G. M. Simpson	5	1 0	221	88·5	94·04	220	181
	3.—KENT. 188 sq. mi.								
D	Burton (Under Fell)	J. B. Hoyle, Esq.	5	0 9	225	..	45·96	188	150
D	Heversham (Plumtree Hall)	Miss M. C. Watson	5	0 8	115	..	50·84	207	149
D	Grange-over-Sands (Witherslack)	R. M. Argles, Esq.	5	0 9	75	..	48·73	148	126
D	Levens (Beathwaite)	Robert Bush, Esq.	5	1 0	105	..	52·35	187	152
D	Killington Reservoir	F. G. T. Adams, Esq.	8	3 4	674	..	52·70	172	155
D	Kendal (Vicarage Terrace)	G. F. Braithwaite, Esq.	8	1 0	150	..	57·16	194	165
D	Kendal (Highgate)	R. Rhodes, Esq.	5	1 3	150	..	52·67	201	157
D	Kendal (Greenside)	Miss C. E. Wilson	5	1 0	380	..	61·67	189	161
	Kendal (Ellergreen)	J. W. Cropper, Esq.	5	1 6	270	..	60·76	178	157
D	Kendal (Burneside)	W. E. Brown, Esq.	5	0 10	160	..	60·46	194	162
d	Kendal (Potter Fell)	J. Cropper & Co., Ltd.	5	2 0	750	..	83·52	..	..
D	Kentmere Head Reservoir	Mrs. Brocklebank	5	1 6	920	..	105·22	197	179
	4.—LUNE. 122 sq. mi.								
	Kirkby Lonsdale	J. R. Picard, Esq.	7	1 0	215	..	49·42	..	..
D	Barbon Manor	Lord Shuttleworth	5	1 3	650	..	50·21	176	167
D	Barbon (The Stores)	W. Wilkinson, Esq.	5	1 0	310	..	49·29	153	143
	Ravenstonedale (Railway Station)	J. T. Sanderson, Esq.	5	1 0	800	..	48·86	..	..
	5.—TEES. 40 sq. mi.								
M	Lunedale (Conny Pot)	G. R. Collinson, Esq., C.E.	5	1 0	1840	..	52·30	..	..

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

MONMOUTH. (Area, 534 sq. mi.)

	1.—RHYMNEY. 39 sq. mi.								
d	Rumney (Witla Court)	Mr. E. Edwards	5	1 0	175	39·4	43·33	..	..
D	St. Mellons (Druidstone)	Mr. G. H. Shoebridge	5	1 0	280	..	42·93	147	117
d	Machen (Machen Quarry)	Machen Stone and Lime Co.	5	1 1	250	..	52·51	158	133

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
MONMOUTH—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—EBBW. 88 sq. mi.								
D Rogerstone (Rhiwderin)	Sir L. Forestier-Walker, K.B.E.	5	1 3	250	44.0	44·41	146	123
D Blackwood	D. H. Price, Esq.	5	0 10	630	..	55·70	159	123
D Abertillery (The Park)	S. E. Thomas, Esq.	5	1 0	700	57·2	61·06	163	128
d Tredegar Laboratory	W. Morgan, Esq.	5	2 0	950	59·8	66·61	168	130
D Ebbw Vale (Iron Works)	J. H. Williams, Esq., V.C.	8	1 0	902	56·6	62·83	145	124
3.—USK & C. 290 sq. mi.								
D Redwick	Lt.-Col. Blethyn T. Rees, C.E.	5	1 3	24	..	36·93	144	115
D Portskewett (Sudbrook)	S. W. Moore, Esq., C.E.	8	1 0	51	..	34·84	140	111
D Newport (Clytha Park)	A. W. Jupp, Esq.	5	1 0	180	..	46·20	158	122
D Newport (Alltyryn Hosp.)	Dr. J. Howard Jones, M.O.H	8	1 0	265	..	46·99	153	118
D Newport W.W. (Friar St. Yard)	Newport Corporation	5	6 0	32	..	42·69	150	118
D Newport WW (Ynis-y-fro Res.)	Newport Corporation	5	1 0	136	..	47·22	173	121
D Newport WW (Pant-y-reos Res.)	Newport Corporation	5	1 0	435	..	53·64	177	125
D Newport W.W. (Llanvaches)	Newport Corporation	5	0 10	456	..	44·41	161	122
D Newport W.W. (Nantypridd)	Newport Corporation	5	1 0	500	..	48·04	159	124
D Chepstow (Itton Court)	Sir E. Curre, Bart., C.B.E.	5	1 0	390	..	45·79	151	121
D Caerleon (Cwm-y-wiwer)	Lt.-Col. Blethyn T. Rees, C.E.	5	1 0	112	37·5	41·90	159	118
D Newport W.W. (Newchurch)	Newport Corporation	5	1 0	550	..	50·03	156	120
d Usk (Castle Parade House)	J. Maitland Watkins, Esq.	5	1 0	75	..	44·31	..	..
D Usk (Monmouth Agric. Instn.)	The Principal	5	1 0	70	..	43·48	144	108
D Abersychan (Glansychan)	G. W. James, Esq.	5	1 2	699	55·0	62·83	173	124
Goytre (Goytre Hall)	Mrs. Lionel Whitehead, O.B.E.	5	1 0	300	46·1	55·34	137	116
D Blaenavon (Estate Office)	E. J. John, Esq.	8	1 0	1150	55·1	63·99	131	106
D Abergavenny (Ty Clyd)	F. D. Llewelyn, Esq.	5	1 0	272	45·1	54·32	147	103
D Abergavenny (Richmond Road)*	W. H. Edmunds, Esq.	8	1 0	217	40·6	50·69	126	101
D Abergavenny (Larchfield)	Dr. N. R. Phillips	5	1 0	240	37·5	46·47	137	102
D Abergavenny (The Chain)	W. Baker-Gabb, Esq.	5	1 0	310	..	50·30	153	109
D Grwyne Fawr (Coed Dias)	W. Baker-Gabb, Esq.	5	1 0	900	..	47·55	168	127
4.—WYE. 117 sq. mi.								
D Llanvihangel Crucorney Depot	J. F. Jupp, Esq., C.E.	5	1 0	501	..	48·91	140	120
GLAMORGAN. (Area, 808 sq. mi.)								
1.—LOUGHOR. 55 sq. mi.								
D Gorseinon (Penllergaer)	Sir C. Venables Llewelyn, Bt.	5	3 0	240	48·7	55·62	166	144
D Felindre (Blaenant Dhu)	Lt.-Col. F. Hibbert, C.E.	5	1 3	346	..	61·86	183	148
D Felindre (Lower Lliw Res.)	Lt.-Col. F. Hibbert, C.E.	8	1 3	426	..	55·68	186	142
D Felindre (Upper Lliw Res.)	Lt.-Col. F. Hibbert, C.E.	8	1 3	599	..	68·15	188	155
2.—GOWER PENINSULA. 62 sq. mi.								
D Gower (Penrice Castle)	Mr. George Miller	5	1 11	12	..	45·61	150	136
d Penmaen (Cefn Mor)	Mrs. R. A. Bostock	5	1 6	300	41·5	43·12	..	132
D Sketty (Rhydyrhelyg)	E. H. Perkins, Esq.	5	1 0	124	46·0	55·18	175	141
3.—TAWE. 47 sq. mi.								
D Swansea (Victoria Park)	(+A) D. Bliss, Esq.	8	1 0	27	44·7	56·47	181	147
D Morriston (Pentrepoth House)	Dr. M. W. Williams	5	1 0	236	..	55·97	153	129
D Clydach (Wernfadog)	(R) W. J. P. Player, Esq.	8	1 0	..	..	59·57	175	146
D Ystalyfera (Wern House)	Miss I. E. Williams	5	1 6	240	64·8	75·78	155	143

* Formerly called Mansel Place.

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
GLAMORGAN—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—NEATH. 82 sq. mi.								
D Briton Ferry (Brynsiriol)	H. A. Clarke, Esq., C.E.	5	1 0	33	..	55·06	159	141
D Briton Ferry (Cefn Court)	H. A. Clarke, Esq., C.E.	5	1 0	503	47·7	56·63	144	130
D Neath (Cimla Reservoir)	H. A. Clarke, Esq., C.E.	5	1 0	360	..	57·74	163	138
D Neath (Gnoll Reservoir)	H. A. Clarke, Esq., C.E.	5	1 0	204	..	57·89	165	136
D Neath (Bryn-Teg)	H. P. Lloyd, Esq.	5	0 9	100	..	57·64	176	139
d Neath (Glynfelin)	T. Gibbins, Esq.	5	1 4	180	..	63·50	..	142
D Rhondda W.W.(Llyn Fawr Res.)	Mr. J. B. Hughes	8	1 0	1220	88·6	94·56	183	154
Pontardawe (Plas Cilybebyll)	J. H. P. Lloyd, Esq.	5	1 3	500	..	74·74	..	..
5.—OGMORE & G. 350 sq. mi.								
D Barry W.W. (Biglis)	T. E. Franklin, Esq., C.E.	5	1 0	19	34·5	37·77	142	119
Barry W.W.(Merthyr Dyfan R.)	T. E. Franklin, Esq., C.E.	5	1 0	300	37·6	41·45	..	..
Barry W. W. (Dinas Powis Res.)	T. E. Franklin, Esq., C.E.	5	1 0	165	36·4	(40·53)	..	..
D Lower Penarth	E. I. Evans, Esq., C.E.	5	1 0	66	34·9	36·99	131	108
D Penarth (Council Offices)	E. I. Evans, Esq., C.E.	5	5 0	160	37·1	38·40	143	112
D Dunraven Castle	J. P. Maitland, Esq.	5	1 0	80	..	39·39	140	131
D Cardiff (Cogan Pumping Statn.)	N. J. Peters, Esq., C.E.	5	1 0	121	37·7	42·70	153	119
D Cardiff (Ely Pumping Station)	N. J. Peters, Esq., C.E.	5	1 0	53	42·1	41·97	168	127
D Fairwater (Glan Ely Hospital)	Medical Superintendent	8	1 0	122	..	41·49	134	107
Barry W.W. (Pencoedtre Res.)	T. E. Franklin, Esq., C.E.	5	1 0	200	..	39·28	..	..
D Cardiff (St. Fagans Castle)	Capt. H. A. Pettigrew	5	0 10	100	48·5	49·52	141	122
D Cowbridge (Pentre Meyrick)	F. E. P. Dunn, Esq.	5	1 0	300	..	47·44	156	134
D Merthyr Mawr	Lt.-Col. J. I. D. Nicholl	5	1 6	75	42·9	42·78	210	151
D Bridgend (Eiw Graig)	H. J. Randall, Esq.	8	1 0	50	..	44·33	168	137
D Bridgend (Waterworks)	E. W. Davies, Esq.	5	1 0	140	..	44·69	135	128
Pencoed (Glan Ffrwd)	E. Tudor Owen, Esq.	8	3 6	77	..	51·48	162	132
D Pencoed (Brynna)	E. W. Davies, Esq.	12	2 6	172	..	49·84	146	128
d Pentcoed (Heol-y-Cyw Sch.)*	W. Morgan-Richards, Esq.	5	1 0	330	..	54·75	..	..
D Port Talbot (Twyn-yr-hydd)	E. U. David, Esq.	5	1 3	180	42·6	49·66	166	131
D Port Talbot (Groeswen Ganol)	A. Bishop, Esq.	8	1 0	51	40·3	48·93	146	140
D Maesteg (Neath Road)	Llewelyn C. Lloyd, Esq.	8	0 10	700	..	75·53	149	146
D Pontycymmer (Police Station)	Sergeant F. Johns	8	1 0	560	..	89·94	157	147
D Ogmore Vale	E. W. Davies, Esq.	8	0 6	600	..	92·27	152	135
D Glyncorrwg Colliery	Mr. J. Preece	5	1 6	725	85·4	93·08	189	169
6.—TAFF. 157 sq. mi.								
D Cardiff (Trade Street Depot)	N. J. Peters, Esq., C.E.	5	1 0	45	39·5	45·01	159	117
D Llandaff (West Hill)	J. E. Gladstone, Esq.	5	1 0	110	42·2	47·23	171	135
D Rhubina Reservoir	N. J. Peters, Esq., C.E.	5	1 0	336	48·1	52·30	158	131
D Pontypridd (Lan Wood Res.)	H. E. Maltby, Esq., C.E.	5	1 6	300	55·1	59·41	162	125
D Ystradyfodwg (Tyntyla Hos.)	J. D. Jenkins, Esq., M.D.	5	1 0	590	60·1	70·68	163	136
D Treorchy (Pumping Station)	E. Taylor, Esq.	5	1 0	518	..	76·87	147	128
D Treharris Service Reservoir	A. J. Marshall, Esq., C.E.	5	1 3	765	52·3	64·62	146	131
D Mountain Ash (Darranlas Res.)	W. G. Thomas, Esq., C.E.	5	0 11	540	63·0	77·33	165	131
D Treherbert (Tyn-y-waun)	O. Thomas, Esq.	5	1 0	801	87·0	104·52	183	155
D Rhondda (Castell Nos. Res.)	H. E. Maltby, Esq., C.E.	5	1 6	1100	82·1	93·03	160	144
D Rhondda (Lluest Wen Filter)	H. E. Maltby, Esq., C.E.	5	1 6	1200	63·3	102·54	159	149
D Rhondda (Lluest Wen Res.)	H. E. Maltby, Esq., C.E.	5	1 6	1280	89·0	115·98	159	151
D Merthyr Tydfil(Penybryn Filters)	A. J. Marshall, Esq., C.E.	5	1 3	937	54·0	65·76	184	143
D Dowlais (Gwernllwyn)	R. C. Harrison, Esq.	5	1 6	1071	51·4	64·05	158	127
D Dowlais (Garth Filter Beds)	A. C. Quiningborough, Esq.	5	1 0	1245	..	67·38	185	143
7.—RHYMNEY. 55 sq. mi.								
D Cardiff (Roath Park)	A. A. Pettigrew, Esq.	5	0 11	49	41·6	43·26	161	123
D Cardiff (Penylan) (+A)	R. M. F. Picken, Esq., M.D.	5	1 0	203	41·4	44·30	145	119
D Cardiff (Heath Filters)	N J. Peters, Esq., C.E.	5	1 0	132	41·3	45·08	148	122
D Llanishen Reservoir	N. J. Peters, Esq., C.E.	5	1 0	155	39·4	39·22	142	117
D Lisvane Reservoir	N. J. Peters, Esq., C.E.	5	1 0	150	37·4	36·27	142	112
D Rhymney Bridge Reservoir	E. Watkin Edwards, Esq., C.E.	8	0 6	1150	56·8	72·34	189	162
CARMARTHEN. (Area, 918 sq. mi.)								
1.—TEIFI. 87 sq. mi.								

* Formerly known as Bridgend (Heol-y-Cyw Sch.).

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
CARMARTHEN—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—TOWY & C. 715 sq. mi.								
Carmarthen (The Friary)	Dr. L. M. Bowen-Jones ..	5	1 5	62	48·3	56·43	189	148
D Carmarthen (Model&Prac. Sch.)	C. W. Wilford, Esq.	5	1 5	65	..	62·32	187	148
D Llandilo (Dynevor Castle)	....Lord Dynevor	8	1 0	202	53·2	60·30	198	160
D Llandilo (Bryneithen)	.....H. L. Puxley, Esq.....	5	1 0	400	49·8	58·08	184	156
w Llyn-y-fanFach(WaenSychlwch)	R. C. Jones, Esq.	5	1 0	1647	83·2	119·10	..	..
D Llyn-y-fan Fach (Nant Coch)	..R. C. Jones, Esq.	5	1 0	1172	74·5	89·36	167	146
w Llyn-y-fan Fach (Bua'r Llyn)	..R. C. Jones, Esq.	5	1 0	1650	..	119·86	..	..
D Llyn-y-fan Fach(Troed-y-Foel)	..R. C. Jones, Esq.	5	1 0	867	..	74·43	182	147
D Llanddeusant (Pontcrynfe)	....J. Thomas, Esq.	5	1 0	323	55·6	66·31	175	137
D Abergorlech	.....S. L. Davies, Esq.	5	1 0	250	..	64·73	193	156
D Llandovery (Nantyrhogfaen)	...D. T. M. Jones, Esq.	5	1 0	249	50·8	58·81	172	152
D Llanwrda	.....Mr. H. H. Matthews	5	2 6	498	57·5	63·08	211	171
3.—LOUGHOR & C. 104 sq. mi.								
D Llanelly (Old Market Yard)	...G. Watkeys, Esq., C.E.	5	12 0	35	44·6	53·04	178	152
D Llanelly (Filter Beds)	.....G. Watkeys, Esq., C.E.	5	1 0	237	45·1	55·71	178	152
D Llanelly (Cwmlliedi W.W.) *Old g*	G. Watkeys, Esq., C.E....	5	2 3	240	48·7	57·63	187	149
D Llanelly (Cwmlliedi W.W.) *New g*	G. Watkeys, Esq., C.E. ...	5	1 1	240	..	57·56	186	149
D Llanelly(UpperLliediRes.) *Old g*	G. Watkeys, Esq., C.E. ..	5	3 0	290	58·6	62·84	186	155
D Llanelly(UpperLliediRes.) *New g*	G. Watkeys, Esq., C.E. ..	5	0 11	290	..	62·38	186	156
w Llannon	.....R. C. Jones, Esq.	5	1 0	860	..	70·13	..	..
4. TAWE. 7 sq. mi.								
5.—USK. 5 sq. mi.								
6.—WYE.								
PEMBROKE. (Area, 617 sq. mi.)								
1.—TEIFI. 37 sq. mi.								
2.—NEVERN & C. 91 sq. mi.								
3.—WEST COAST STREAMS. 82 sq. mi.								
4.—CLEDDAU & C. 407 sq. mi.								
d Pembroke (Stackpole Court)	..Mr. F. G. Garlick	6	1 6	60	39·3	45·92	..	121
D Manorbier (N.P. School)	.....H. J. Parr, Esq.	5	12 0	120	..	44·29	187	148
D Tenby (The Priory)	.....G. P. Webb, Esq.	8	0 10	87	40·9	45·25	171	135
D St. Ann's Head	.....The Meteorological Office .	8	1 0	142	35·3	41·68	168	130
D Pembroke Dock (County School)	J. H. Garnett, Esq.	5	1 0	85	42·7	48·78	151	136
D Pembroke Dock (Admiralty R.)	Officer i/c. Works	8	1 0	90	..	46·57	159	139
d Milford Haven W. W.	.....S. Hall, Esq.	5	1 0	120	..	43·76	..	..
d Milford Haven (Co. School)	...F. L. Lowther, Esq.....	5	12 0	150	..	46·55	..	..
D Saundersfoot (Hean Castle)	...Lord Merthyr.....	5	1 1	206	36·3	41·99	149	129
D Narberth (Cwmderwen)	..... Mrs. Allen.....	5	1 0	300	..	49·06	173	143
Haverfordwest (Picton Castle)	.Sir C. E. G. Philipps, Bt. .	5	0 10	138	46·8	51·82	..	..
D Haverfordwest (Portfield)	.....J. W. Phillips, Esq.	5	1 0	250	44·8	53·34	188	146
D Haverfordwest (Grammar Sch.)	J. W. Phillips, Esq.	5	1 0	95	46·4	56·50	182	145
d Mynachlogddû (Council School)	W. H. Parry, Esq.	5	1 3	630	..	(69·42)	..	..
D Fishguard (Langton, Dwrbach)	J. C. Yorke, Esq.	5	1 0	320	45·4	46·38	174	148
CARDIGAN. (Area, 688 sq. mi.)								
1.—DOVEY. 20 sq. mi.								
Glandyfi	.....R .A. C. Pugh, Esq.....	..	.. ..	..	..	50·29	..	..

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with .01 in. or more.	Days with .04 in. or more.
CARDIGAN—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2. YSTWYTH & C. 347 sq. mi.								
D Llanafan (Crosswood Park)	The Earl of Lisburne	5	1 0	201	..	48·08	198	168
D Yspytty-Ystwyth (Hafod)	T. J. Waddingham, Esq.	5	1 3	580	56·4	55·84	223	188
Capel Bangor (Penllwyn)	W. E. Whitehouse, Esq.	5	1 0	145	41·3	40·03?	..	..
D Aberystwyth (Castle Grounds)	Dr. A. Thomas	8	1 0	69	..	34·57?	173	136
Aberystwyth (North Parade)	Dr. A. Thomas	8	2 6	16	..	39·56	183	143
D Aberystwyth(PlantBreedingStn.)	M. G. Jones, Esq.	5	1 0	450	..	44·79	204	144
D Elerch (Lletty-evan-hen)	M. G. Jones, Esq.	5	1 0	900	..	45·94	187	154
3.—TEIFI. 260 sq. mi.								
D Cardigan (County School)	Dr. D. Rees	5	1 6	72	..	44·31	178	142
D Lampeter (Falcondale)	Mr. W. T. Taylor	5	1 0	498	..	52·06	196	162
d Llandyssul (Talgarreg)	T. Ll. Stephens, Esq., for M.O.	5	1 0	600	..	(54·93)	..	..
4.—TOWY. 46 sq. mi.								
d Abergwesyn (Nantneuadd)	The Meteorological Office	5	1 0	1000	..	65·41	..	141
M Tregaron (Maes-y-bettws)	The Meteorological Office	5	1 0	910	..	69·10	..	..
5.—WYE. 15 sq. mi.								
M BirminghamW.W.(Llyn Gynon)	J. W. Wilkinson, Esq., C.E.	5	1 0	1500	..	(69·57)	..	..
M BirminghamWW(Bwlchyrhendre)	J.W.Wilkinson,Esq., CE.	5	1 0	1585	..	70·60	..	..
M Birmingham W.W. (Claerddu)	J. W. Wilkinson, Esq, C.E.	5	1 0	1470	..	72·45	..	..
M Birmingham W.W. (Gwngu)	J. W. Wilkinson, Esq., C.E.	5	1 0	1490	..	(64·35)	..	..
d BirminghamW.W.(Abergwngu)	J. W. Wilkinson, Esq., C.E.	5	1 0	1150	..	67·30	..	171
M Plynlimon	The Meteorological Office	5	1 0	1630	108·0	107·20	..	..
BRECON. (Area, 733 sq. mi.								
1.—TOWY 17 sq. mi.								
2.—TAWE. 41 sq. mi.								
D Ystradgynlais(Yniscedwyn Ho.)	G. Coleman, Esq.	5	0 9	232	65·2	69·00	165	150
D Swansea W.W. (Nantyrwydd)	Lt.-Col. F. Hibbert, C.E.	5	0 10	908	90·8	107·20	193	171
3.—NEATH. 48 sq. mi.								
D Glyn Neath (P. Neath Vaughan)	Messrs.Curtis&Harvey,Ltd.	5	1 5	297	61·7	63·82	166	139
D Ystradfellte Reservoir	D. M. Davies, Esq., C.E.	5	1 0	1147	85·4	92·69	185	149
4.—TAFF. 48 sq. mi.								
D Aberdare (Nanthir Reservoir)	O. Williams, Esq. C.E.	5	1 0	860	59·6	72·93	183	142
D Taf Fechan (Pontsticill) No. 12A.	C. Quiningborough, Esq.	5	1 0	1031	..	65·28	198	157
M Taf Fechan (Pontsticill West) 14A.	C. Quiningborough, Esq.	5	1 0	1254	..	66·75	..	..
D Cardiff W.W. (Llwynon Res.)	N. J. Peters, Esq., C.E.	5	1 0	860	57·8	67·40	185	146
w Cardiff W.W. (Troedyrhiw)	N. J. Peters, Esq., C.E.	5	1 0	860	63·6	71·35	..	..
D Cardiff W.W. (Pont-ar-daf)	N. J. Peters, Esq., C.E.	5	1 0	850	64·8	72·13	184	147
w Cardiff W.W. (Garw-nant)	N. J. Peters. Esq., C.E.	5	1 0	1100	67·1	73·17	..	..
w Cardiff W.W. (Nant-Gwineu)	N J. Peters, Esq., C.E.	5	1 0	1275	54·3	74·56	..	..
w Cardiff W.W. (Nant-y-gou-garn)	N. J. Peters, Esq., C.E.	5	1 0	..	72·0	83·85	..	..
D Taf Fechan (Pentwyn Res. S.)	A C. Quiningborough, Esq.	5	1 0	1120	..	76·67	199	153
Taf Fechan (Pentwyn Res. N.)	A. C. Quiningborough, Esq.	5	1 0	1090	..	73·42	..	..
w Cardiff W.W. (Nant Goch)	N. J. Peters, Esq., C.E.	5	1 0	..	55·8	67·02	..	..
w Cardiff W.W. (Nant Ddu)	N. J. Peters, Esq., C.E.	5	1 0	1560	71·5	84·82	..	..
wCardiffW.W.(StoreyArms) *new g*	N. J. Peters, Esq., C.E.	5	1 0	1430	..	(98·09)	..	..
wCardiffW.W.(StoreyArms) *old g*	N. J. Peters, Esq., C.E.	5	1 0	1430	60·2	88·69	..	..
‡wCardiffW.W. (Tyle Brith) No. 1	N. J. Peters, Esq., C.E.	5	1 0	2350	73·2	81·42	..	..
D Cardiff W.W. (Cantreff R.) No 2	N. J. Peters, Esq., C.E.	5	1 0	1120	70·1	79·67	190	154
D CardiffW.W.(Beacons Res.)No.6	N. J. Peters, Esq., C.E.	5	1 0	1340	79·4	86·48	186	160
w Cardiff W.W. (Nant Penig) No 3	N. J. Peters, Esq., C.E.	5	1 0	2000	87·5	97·86	..	..

‡ Gauge over-exposed on moor.

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
BRECON—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—TAFF—(*con.*).								
D Taf Fechan (Neuadd Rs.) No. 1A.	C. Quiningborough, Esq.	5	1 0	1462	70·3	83·04	196	160
D Taf Fechan (Neuadd Rs.)No.1AA.	C. Quiningborough, Esq.	5	1 0	1423	..	96·81	196	161
D Taf Fechan (Neuadd Rs.) No.4 A.	C. Quiningborough, Esq.	5	1 0	1487	82·7	94·38	196	164
D Taf Fechan (Neuadd Rs.) No.11A.	C. Quiningborough, Esq.	5	1 0	1524	68·3	84·19	196	158
D Taf Fechan(Neuadd Rs.)No.11AA.	C. Quiningborough, Esq.	5	1 0	1520	..	93·43	196	164
M Taf Fechan (Neuadd Rs.) No.2 .A.	C. Quiningborough, Esq.	5	1 0	1993	72·7	82·33	..	..
M Taf Fechan (Neuadd Rs.) No. 5A.	C. Quiningborough, Esq.	5	1 0	1515	81·1	97·45	..	..
M Taf Fechan (Neuadd Rs.) No.10A.	C. Quiningborough, Esq.	5	1 0	1700	72·7	83·48	..	..
M Taf Fechan (Neuadd Rs.) No. 3A.	C. Quiningborough, Esq.	5	1 0	1843	60·6	87·81	..	..
M Taf Fechan (Neuadd Rs.) No. 7A.	C. Quiningborough, Esq.	5	1 0	2017	81·1	108·67	..	..
M Taf Fechan (Neuadd Rs.) No. 8A.	C. Quiningborough, Esq.	5	1 0	1723	85·7	99·83	..	..
M Taf Fechan (Neuadd Rs.) No.8AA.	C. Quiningborough, Esq.	5	1 0	1780	..	88·24	..	..
M Taf Fechan (Neuadd Rs.) No. 6A.	C. Quiningborough, Esq.	5	1 0	2099	92·4	109·63	..	..
5.—RHYMNEY. 2 sq. mi.								
6.—EBBW. 7 sq. mi.								
D Ebbw Vale W.W.(Llangynidr)	P. I. Davies, Esq., C.E...	5	1 0	1413	58·8	75·89	158	144
D Ebbw V.W.W.(Llangynidr) W 3	P. I. Davies, Esq., C.E. ..	5	1 0	1468	..	76·86	158	147
D Ebbw V.W.W.(Llang'ndr)NW 2	P. I. Davies, Esq., C.E. ..	5	1 0	1471	..	75·85	158	149
D Ebbw Vale W.W. (Carno, S.) ..	P. I. Davies, Esq., C.E. ..	5	1 0	1262	..	74·18	158	145
D Ebbw Vale W.W. (Carno, E.) .	P. I. Davies, Esq., C.E. ..	5	1 0	1391	..	72·68	158	145
D Ebbw Vale W.W. (Carno, W.) .	P. I. Davies, Esq., C.E. ..	5	1 0	1412	..	76·60	158	147
D Ebbw Vale W.W. (Carno, N.) .	P. I. Davies, Esq., C.E. ..	5	1 0	1491	..	72·54	158	146
7.—USK. 299 sq. mi.								
Torpantau (Darenfawr)	Newport Corporation	5	1 0	1172	..	78·29	..	..
Torpantau (Ynysposte)	Newport Corporation	5	1 0	741	..	77·33	..	..
Torpantau (Blaen-caer-fanell) .	Newport Corporation	5	1 0	1584	..	83·58	..	..
D Talybont Ffynonwen	Newport Corporation	5	1 0	610	..	72·78	164	136
Talybont (Pwll Ifor)	Newport Corporation.....	5	1 0	1224	..	75·18	..	..
D Crickhowell Rectory	Rev. G. Roberts	5	1 0	320	..	50·21	147	121
D Crickhowell (Gwernvale)	E. Pirie Gordon, Esq.....	5	1 0	393	41·5	49·33	157	118
D Crickhowell (Glanusk Park)	Lord Glanusk.....	5	1 0	290	..	59·16	193	148
M Swansea W.W. (Cray Rs.) No. 2	Lt.-Col. F. Hibbert, C.E...	5	1 0	1019	..	93·48	..	..
D Swansea W.W.(Cray Rs.)No.1(+A)	Lt.-Col. F. Hibbert, C.E.	5	1 0	1043	..	81·09	184	164
M Cray Post Office	The Meteorological Office .	5	1 0	930	..	(79·20)	..	..
M Talybont (Cwy Parc)	Miss E. Jones-Williams ..	5	1 6	480	..	61·30	..	..
D Llanfrynach (Ty-mawr)	Miss M. D. de Winton ...	5	1 0	450	..	51·80	163	113
Crickhowell (Cwmdu Rectory) .	Rev. W. A. Davies.....	5	1 0	430	..	39·21	..	..
M Crickhowell (Tal-y-maes)	The Meteorological Office .	5	1 0	1250	..	50·90	..	..
d Trecastle (Blaenau-hydfer)	The Meteorological Office	5	1 0	970	..	77·36	..	128
D Brecon (Tairbull School)	I. L. Price, Esq.	5	1 0	660	52·0	66·72	173	143
d Brecon (Ffrwdgrech)	Capt. J. D. D. Evans	8	1 1	570	..	55·96	..	..
d Brecon (Mount St. Sch. Gdns.)	W. T. Winstanley, Esq. ..	5	0 11	600	..	51·49	178	132
D Black Mountains (Blaen-y-cwm)	J. F. Jupp, Esq., C.E.	5	1 0	1423	..	61·58	177	146
D Black M.(DamSiteGrwyneFawr)	J. F. Jupp, Esq., C.E.	5	1 0	1620	..	64·97	176	146
M Upper Chapel (Tymawr)	Mrs. Probert	5	1 0	945	46·9	50·60	..	..

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
BRECON—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
8.—WYE. 271 sq. mi.								
D Cathedine Rectory	The Meteorological Office	5	1 6	650	..	41·02	136	108
D Llanfihangel-Talyllyn, Sur.-Capt. E.O.B. Carbery, R.N. (Rtd.)		5	1 3	650	..	48·03	168	122
D Talgarth (Dan-y-garth)	F. Morgan, Esq.	5	1 0	400	33·2	34·26	137	113
D Talgarth (Pontiwal Sanatorium)	Dr. H. E. Watson	5	0 10	500	..	33·94	183	134
D Builth Wells (Tyn-y-berllan)	Dr. W. Black Jones	5	1 0	425	38·1	42·83	152	121
M Abergwesyn (Trallwn)	The Meteorological Office	5	1 0	1000	..	81·90	..	..
M Newbridge (Pengraig)	The Meteorological Office	5	1 0	960	56·8	59·10	..	..
D Newbridge (Llysdinam)	Sir C. Venables Llewelyn, Bt.	5	1 3	646	41·2	44·32	166	139
M Birm'gh'mW.W. (Cors-yr-hwch)	J. W. Wilkinson, Esq., C.E.	5	1 0	1775	..	(88·59)	..	..
M Birm'gh'mW.W. (EsgairCeiliog)	J. W. Wilkinson, Esq., C.E.	5	1 0	1560	..	80·76	..	..
M Birm'gh'm W.W. (Llyn-Carw)	J. W. Wilkinson, Esq., C.E.	5	1 0	1775	..	80·29	..	..
M Birm'gh'm W.W. (Nant-y-cr)	J. W. Wilkinson, Esq., C.E.	5	1 0	1545	..	79·72	..	..
M Birm'gh'm W.W. (Tyn-y-pant)	J. W. Wilkinson, Esq., C.E.	5	1 0	1320	63·2	(61·45)	..	..
M Birm'gh'mW.W. (EsgairGarthen)	J. W. Wilkinson, Esq., C.E.	5	1 0	1590	..	75·43	..	..
O Birm'gh'm W.W. (Elan Village)	J. W. Wilkinson, Esq., C.E.	5	1 0	700	..	(58·14)	136	156
RADNOR. (Area, 474 sq. mi.)								
1.—WYE. 424 sq. mi.								
D Glasbury-on-Wye (Hampton Sc.)	D. W. Lloyd, Esq.	5	1 0	274	33·9	35·91	130	108
D Builth (Cefndyrys)	Capt. E. A. Thomas	5	1 10	740	41·5	48·46	145	139
Builth Rd. (St. John's Vicarage)	Rev. Canon J. L. Bryans.	5	1 0	550	41·9	44·48	171	136
M New Radnor (Gryliss)	H. Langston, Esq.	5	1 0	1200	..	46·02	..	..
D New Radnor (Harpton Crt. Gns)	Mr. C. W. Bowen	5	0 9	700	..	44·63	152	134
M New Radnor	John Langston, Esq.	5	1 0	750	44·1	46·04	194	..
D Llandrindod Wells	Rev. J. Ll. Herbert	5	1 0	699	39·3	46·96	176	139
D Birmingham WW (Tyrmynydd)	J. W. Wilkinson, Esq., C.E.	5	1 0	832	62·1	61·63	201	154
D Birmingham W.W. (Nantgwillt)	J. W. Wilkinosn, Esq., C.E.	5	1 0	840	63·2	(59·80)	198	159
M Birmingham W. W. (Dwfnant)	J. W. Wilkinson, Esq., C.E.	5	1 0	1050	67·8	67·50	..	..
M BirminghamWW (EsgairGader) 2	J. W. Wilkinson, Esq., C.E.	5	1 0	1500	68·9	(70·42)	..	..
M Birmingham W.W. (Tynllidiart)	J. W. Wilkinson, Esq., C.E.	5	1 0	1006	..	64·80	..	..
d Birmingham W.W. (Claerwen)	J. W. Wilkinson, Esq., C.E.	5	1 0	1250	65·2	68·75	..	176
D Birmingham W.W. (Tynant)	J. W. Wilkinson, Esq., C.E.	5	1 0	1020	63·6	67·89	197	160
D Rhayader (Penralley)	E. D. Prothero, Esq.	5	1 0	757	50·6	47·94	203	146
Rhayader (East Street)	J. W. Wilkinson, Esq., C.E.	5	1 0	700	..	48·70	..	..
M Bir'ghamWW (Cerriglwydion)	J. W. Wilkinson, Esq., C.E.	5	1 0	1710	74·8	(73·77)	..	..
M Birm'gham WW (Pen-y-gareg)	J. W. Wilkinson, Esq., C.E.	5	1 0	1500	55·2	51·50	..	..
M Birm'gham WW (Pen-y-gareg) 2	J. W. Wilkinson, Esq., C.E.	5	1 0	1540	43·9	58·05	..	..
M Birmingham W.W. (Calettwr)	J. W. Wilkinson, Esq., C.E.	5	1 0	1490	71·1	76·55	..	..
M Birmingham W.W. (Figin) No. 2	J. W. Wilkinson, Esq., C.E.	5	1 0	1700	83·3	84·65	..	..
M Birmingham WW (Aberhenllan)	J. W. Wilkinson, Esq., C.E.	5	1 0	1070	58·8	66·80	..	..
M Llanbister (Llananno)	The Meteorological Office	5	1 0	900	45·1	44·05	..	..
2.—SEVERN—Right Bank Tributaries. 50 sq. mi.								
MONTGOMERY. (Area, 797 sq. mi.)								
1.—DOVEY. 120 sq. mi.								
2.—YSTWYTH. 7 sq. mi.								
3.—WYE. 37 sq. mi.								
D Llangurig (Dernol)	The Meteorological Office	5	1 0	870	61·5	53·96	167	157
4.—SEVERN—Right Bank Tributaries. 154 sq. mi.								
D Llanidloes (Llidiartywaen Sch.)	G. E. Edwards, Esq.	5	1 3	1150	..	46·57	189	135
D Newtown (Penarth Weir)	L. M. & S. Rly.	8	1 0	321	35·0	39·82	157	114
D Montgomery (Oakfield)	Dr. R. E. Game Phillips	5	1 0	450	..	32·46	170	136

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
MONTGOMERY—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
5.—SEVERN—Left Bank Tributaries. 479 sq. mi.								
D Trefeglwys	J. I. Wilson, Esq., for M.O.	5	1 0	350	..	44·93	..	129
D Berriew (Brithdir Hall)	Mrs. F. E. Marston	5	1 0	350	30·7	34·24	175	119
D Welshpool (County School)	John Ward, Esq.	5	1 0	254	30·1	30·24	144	120
D Welshpool (Fron Llwyd)	Lt.-Col. G. B. D. Harrison	5	1 3	500	33·7	35·66	175	130
Garthbibio (Bwlch Tomlyd)	The Meteorological Office	5	1 0	1200	71·0	74·30	..	..
d Llandysilio Rectory	Rev. H. G. Dickinson	5	1 0	250	..	(26·68)	(137)	(103)
D Lake Vyrnwy	J. E. Bradley, Esq.	5	0 7	770	54·0	63·15	153	149
Lake Vyrnwy (Bryn Gwyn)	Col. J. R. Davidson, C.E.	8	1 0	1311	..	65·43	..	..
D Lake Vyrnwy (Bank Cynon Isaf)	Col. J. R. Davidson, C.E.	8	1 0	750	55·3	61·17	185	149
Lake Vyrnwy (Ty Uchaf)	Col. J. R. Davidson, C.E.	8	1 0	860	..	58·27	..	..
Lake Vyrnwy (Heol-y-ffridd) 1	Col. J. R. Davidson, C.E.	8	1 0	913	..	71·45	..	..
Lake Vyrnwy (Heol-y-ffridd) 2	Col. J. R. Davidson, C.E.	8	1 0	830	..	65·60	..	..
Lake Vyrnwy (Tyn-y-ffridd)	Col. J. R. Davidson, C.E.	8	1 0	1010	..	56·22	..	..
Lake Vyrnwy (Lluestwen)	Col. J. R. Davidson, C.E.	8	1 0	1667	..	74·40	..	..
Lake Vyrnwy (Llwynrhiw)	Col. J. R. Davidson, C.E.	8	1 0	1428	..	84·00	..	..
Lake Vyrnwy (Craig-y-Gribbin)	Col. J. R. Davidson, C.E.	8	1 0	1422	..	67·81	..	..
Lake Vyrnwy (Eunant Bridge)	Col. J. R. Davidson, C.E.	8	1 0	830	..	78·51	..	..
Lake Vyrnwy (Carreg Goch)	Col. J. R. Davidson, C.E.	8	1 0	1750	..	67·01	..	..
Lake Vyrnwy (Fawnog)	Col. J. R. Davidson, C.E.	8	1 0	1315	55·7	60·70	..	..
FLINT. (Area, 256 sq. mi.)								
1.—DEE. 198 sq. mi.								
D Hanmer (Gredington)	Lady Kenyon	5	1 0	300	30·4	30·66	167	140
D Overton (Fairleigh)	Dr. B. J. E. Wright	5	1 0	220	26·8	28·62	181	129
Buckley (Hawarden W. W.)	W. Simmons, Esq.	5	1 0	540	28·7	28·19	..	..
D Harwarden (County School)	C. F. Williams, Esq.	5	0 9	280	27·2	24·31	154	125
D Mold (Mount Pleasant)	R. F. Baker, Esq., C.E.	5	1 0	503	..	29·45	195	151
D Northop (Soughton Hall)	Sir John Bankes	5	1 0	418	32·1	31·37	174	152
D Cilcain (Cilcen Hall)	W. B. Yates, Esq., C.B.E.	5	1 0	680	29·7	28·32	190	140
D Connah's Quay (Mold Road)	R. F. Baker, Esq., C.E.	5	1 0	43	..	27·17	176	141
D Connah's Quay (Pengwladys)	R. F. Baker, Esq., C.E.	5	1 0	231	..	27·22	175	144
D Hawarden Bridge	Messrs. J. Summers & Sons	8	1 3	22	24·3	25·95	176	135
D Sealand Aerodrome	(+A) The Meteorological Office	8	1 0	16	26·0	25·78	177	131
D Mostyn Vicarage	Rev. W. Vaughan-Jones	5	1 0	100	33·2	29·42	176	132
2.—CLWYD. 51 sq. mi.								
d Bodfari (Nantlys)	D. F. Pennant, Esq., D.L.	5	1 5	178	27·4	26·70	..	142
D Bodfari (Cae Gwyn)	Mrs. Morgan	5	1 0	534	30·8	24·96	164	126
D St. Asaph (St. Beuno's Coll.)	Rev. Richard Dea, S.J.	6	1 2	479	..	26·86	177	136
Dyserth Castle	J. B. Price, Esq.	5	1 0	350	..	22·10?	..	..
D Rhyl (Sewage Works)	The Town Clerk	8	1 0	30	25·3	26·00	176	127
D Prestatyn	Town Clerk	5	1 0	17	..	25·81	157	122
3.—SEVERN—Left Bank Tributaries. 7 sq. mi.								
DENBIGH. (Area, 668 sq. mi.)								
1.—DEE. 278 sq. mi.								
Glynceiriog (Plas Nantyr)	C. B. C. Storey, Esq.	6	1 0	1450	..	51·33	..	..
D Chirk Castle Gardens	Lord Howard de Walden	5	1 0	630	..	37·04	150	128
D Ruabon (Trevor Hall)	E. Lloyd Edwards, Esq.	5	1 0	500	30·9	35·32	152	133
D WrexhamW.W. (Ty Mawr Res.)	J. A. Davies, Esq.	5	0 9	805	39·1	34·82	174	132
D WrexhamW.W. (PackSaddleRes,)	J. A. Davies, Esq.	5	0 9	376	32·0	32·13	189	133
D WrexhamW.W. (CaeLlwydRes.)	J. A Davies, Esq.	8	0 9	918	41·1	35·14	174	140
D WrexhamW.W. (CaeLlwydRes.)	J. A. Davies, Esq.	5	0 9	918	40·5	34·60	175	136

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.—(*con.*).

	STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
	DENBIGH—(*con.*).		*in.*	*ft.* *in.*	*ft.*	*in.*	*in.*		
	1.—DEE—(*con.*).								
d	Brymbo(Pentre BroughtonSchl.)	D. E. Rees, Esq.	5	1 0	680	..	29·81	..	..
	Wrexham (Beechley Road)	O. L. Jones, Esq.	2	1 0	278	..	31·00	..	..
	Wrexham (Madeira Hill)	O. L. Jones, Esq.	5	1 0	281	..	29·75	..	..
D	Llanfihangel-glyn-myfyr	R. F. Baker, Esq., C.E.	5	1 0	898	..	42·94	163	146
D	R. Alwen (Alwen Filter House)	R. F. Baker, Esq., C.E.	5	1 0	1100	..	43·80	195	155
D	R. Alwen (Alwen Dam)	R. F. Baker, Esq., C.E.	5	1 0	1189	..	48·12	198	162
D	R. Alwen (Hafod-llan-isaf) No.2	R. F. Baker, Esq., C.E.	5	1 0	1172	39·2	37·08	195	148
D	R. Alwen (Hafod-llan-isaf) No3	R. F. Baker, Esq., C.E.	5	1 0	1169	36·8	40·11	196	150
D	Gresford (Horsley Hall Gardens)	R. H. Crockford, Esq.	5	0 10	100	..	27·68	167	135
	Pentre Voelas (Nant Heilyn)	R. F. Baker, Esq. C.E.	5	1 0	1225	..	48·83	..	..
D	R. Brenig (Hafod-yr-Onen)	R. F. Baker, Esq., C.E.	5	1 0	1175	..	37·86	178	141
M	Nantglyn (Pant-y-maen)	R. F. Baker, Esq., C.E.	8	1 0	1320	..	48·93	..	..
M	Llyn Bran	R. F. Baker, Esq., C.E.	8	1 0	1428	..	51·58	..	..
	2.—CLWYD & C. 267 sq. mi.								
	Derwen (Ty Cerrig)	Edgar Billson, Esq.	5	1 0	1030	..	38·29	..	..
D	Pentre Celyn Council School	E. E. Davies, Esq.	5	1 3	400	30·1	28·05	165	137
d	Clawdd-newydd No. 2	R. F. Baker, Esq., C.E.	5	1 0	983	..	37·96	..	130
	Ruthen (Corwen Road)	R. F. Baker, Esq., C.E.	5	1 0	234	..	28·62	..	..
D	Ruthin (Bwlch Tunnel)	R. F. Baker, Esq., C.E.	5	1 0	908	..	29·71	164	131
D	Llangynhafal (Plâs Drâw)	Major R. Bromhead	5	1 0	419	31·1	31·22	204	153
d	Gwytherin Council School	C. E. Jones, Esq.	5	1 1	730	50·1	43·81	..	..
D	Denbigh (Mental Hospital)	W. Barker, Esq.	4	1 0	316	..	30·17	170	139
D	Denbigh (Garn)	J. D.W. Griffith, Esq.	5	1 0	447	32·7	31·64	182	148
M	Llanefydd (Dolwen Res., S.)	O. P. Cronshaw, Esq.	5	1 0	600	..	32·17	..	..
D	Llanefydd (Plas Uchaf Res.)	O. P. Cronshaw, Esq.	5	1 0	485	..	32·24	193	145
D	Llanefydd (Glascoed Res.)	O. P. Cronshaw, Esq.	5	1 0	360	..	26·86	186	134
	St. Asaph (Wigfair)	(R)Col. H.C.Ll.Howard,C.M.G.	8	2 4	250	..	25·36	..	..
D	Abergele (Sea Road)	Sydney Wilson, Esq.	5	1 0	25	28·4	27·83	169	127
D	Colwyn Bay Eirias Park	W. J. Dunning, Esq., C.E.	5	1 0	81	..	30·79	174	133
	3.—CONWAY—4 sq. mi.								
D	Pentre Voelas (Voelas Hall)	Mr. T. N. Dickie	5	1 6	640	..	57·20	185	154
D	Bettws-y-Coed (Rhydycrena)	Mrs. G. Bovill	5	1 0	50	..	52·17	201	147
	4.—SEVERN—Left Bank Tributaries. 47 sq. mi.								
	Llanrhaiadr-yn-Mochnant	David F. Jones, Esq.	5	1 0	512	41·2	48·93	200	157
D	Llansilin (Penygwely Res.)	G. W. Lacey, Esq., C.E.	5	1 0	1095	..	40·08	179	142
	MERIONETH. (Area, 661 sq. mi.)								
	1.—DEE. 218 sq. mi.								
D	Llanuwchllyn	O. L. Jones, Esq.	5	1 0	550	..	66·05	172	140
D	Bala (Eryl Aran)	Mrs. Burton	8	1 0	600	54·6	60·54	171	155
D	Llanderfel (Palé Gardens)	Mr. G. A. Edwards	8	1 0	606	48·2	50·99	187	146
D	Trawsfynydd (Cwm Prysor)	N. Wales Power Co., Ltd.	5	1 0	1290	..	87·45	..	..
d	Corwen (Rûg Gardens)	Col. R. Vaughan Wynn	8	1 2	600	36·2	36·80	..	..
W	Derwen (Minffordd)	R. F. Baker, Esq., C.E.	5	1 0	971	..	38·15	..	..
	2.—CLWYD. 7 sq. mi.								
	3.—GLASLYN. 92 sq. mi.								
	Trawsfynydd (Tyn Twll)	N. Wales Power Co., Ltd.	5	1 0	700	..	90·30	..	..
* D	Minffordd (Hafod-Cae-Maen)	G. H. C. Haigh, Esq.	5	1 0	100	50·5	58·82	203	166
D‡	Tan-y-bwlch (Gelligrin)	J. Roberts, Esq.	5	1 0	24	..	53·72	199	165
D	Tan-y-bwlch (Plas Gardens)	Mr. F. W. Dawe	5	1 0	55	..	68·65	198	172
D	Tan-y-bwlch (Dol-y-Moch)	Mrs. Howland Jackson	5	1 0	55	..	73·12	178	157
D	Festiniog (Hafod Fawr)	Office of Woods	8	1 0	900	74·6	83·28	181	172
d	Blaenau Festiniog (Oakeley Q.)	J. Lloyd Humphreys, Esq.	5	1 0	1100	97·1	115·94	189	179
D	Blaenau Festiniog(Llechweddd Q.)	Messrs. J.W.Greaves & Sons	5	1 0	700	..	117·36	218	185

‡ Gauge over-exposed. * Formerly called Penrhyndeudraeth.

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*con.*).

	STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
	MERIONETH—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
	4.—MAWDDACH & C. 262 sq. mi.								
D	Towyn (Ynys-y-Maengwyn)	R. Corbett, Esq.	5	1 0	14	..	51·32	183	159
D	Towyn (Bronffynnon)	Dr. T. Henry Jones	5	1 0	180	44·2	46·84	195	161
D	Towyn (Peniarth)	Mrs. Wynne	8	1 0	25	..	60·77	193	162
D	Tal-y-llyn Rectory	Rev. J. Pryce Jones	5	1 0	280	..	79·38	195	171
D	Dolgelly (Dol'rhyd)	Col. P. H. Enthoven, D.L.	5	0 9	100	..	68·30	192	163
D	Dolgelly (Bryntirion)	E. P. Beale, Esq.	5	0 10	50	58·8	68·40	197	170
	5.—DOVEY. 82 sq. mi.								
d	Aberdovey (Plas Penhelig)	J. M. Howell, Esq., D.L.	5	1 0	120	..	48·30	..	145
D	Pennal (Talgarth Hall)	Owen D. Jones, Esq.	5	0 9	125	..	64·37	188	165
	6.—SEVERN—Left Bank Tributaries.								
	CARNARVON. (Area, 572 sq. mi.)								
	1.—BARDSEY ISLAND.								
	2.—CONWAY & C. 146 sq. mi.								
	Lake Cowlyd (Llethyr Gwyn)	C. F. Farrington, Esq., C.E.	5	1 0	1700	..	102·85	176	..
	L. Cowlyd (Ffrith Carreg Wen)	A C. F. Farrington, Esq., C.E	5	1 0	1168	..	83·96	176	..
d	Trefriw Wells	C. P. Adamson, Esq.	5	1 0	25	..	51·80	159	134
D	Lake Eigiau (Dam Site)	(+A) N. Wales Power Co., Ltd.	5	1 5	1244	83·9	70·45?	214	178
	Llanbedr-y-Cennin (Melynllyn)	W. T. Ward, Esq., C.E.	5	1 0	2065	..	114·61	..	..
	Llanbedr-y-Cennin (Llyndulyn)	*old g* W. T. Ward, Esq., C.E.	8	1 6	1632	..	81·51	..	..
	Llanbedr-y-Cennin (Llyndulyn)	*new g* W. T. Ward, Esq., C.E.	8	1 0	1632	..	84·42	..	..
w	Llanbedr-y-Cennin (Plasdulyn)	W. T. Ward, Esq., C.E.	8	1 0	509	..	55·55	..	..
D	Tyn-y-Groes (Dolcrwm)	R. S. Fisher, Esq.	5	1 0	100	..	45·18	174	149
D	Tyn-y-Groes (Roe Wen)	Albert Wilson, Esq.	5	1 0	140	..	45·66	189	155
D	Conway (Castle Bank)	Ministry of Agric. & Fisheries	5	1 0	50	..	31·20	163	136
	Deganwy (Y Berlfa)	Willoughby Gardner, Esq.	5	1 0	35	..	32·52	..	..
d	Llandudno (Glanwydden School)	Thomas Roberts, Esq.	5	1 0	28	28·7	28·24	..	..
D	Llandudno	E. R. Williams, Esq.	5	1 0	15	30·0	29·20	167	136
	3.—MENAI STRAITS. 221 sq. mi.								
d	Edeyrn Tydweiliog (Cefnamwich)	W. H. Stark, Esq.	5	1 0	300	..	46·75	..	132
D	Madryn Castle (Farm School)	J. Hines, Esq.	5	1 0	278	39·0	46·50	156	139
	Llanaelhaiarn (Cl. School)	J. Hughes, Esq.	5	1 0	300	51·6	51·30	..	..
d	Llanllyfni (Bryn Aerau Sch.)	Ll. Parry, Esq.	5	1 0	150	47·6	50·47	..	..
	Nantlle (Dorothea Quarries)	W. J. Griffith, Esq.	8	60 0	350	..	70·98	..	..
	Llandwrog (Glynllivon Park)	Hon. F. G. Wynn	5	1 0	100	44·7	48·88	..	..
D	Llandwrog (Glynllivon Nursery)	Hon. F. G. Wynn	5	1 0	180	..	50·75	174	150
	Llandwrog (Glynllivon Garden)	Hon. F. G. Wynn	5	1 0	100	..	51·86	201	154
	Llandwrog (Glynllivon Fort)	Hon. F. G. Wynn	5	1 0	200	..	50·44	164	146
D	Bettws Garmon	Rev. T. C. V. Bastow	5	1 0	414	64·4	75·60	186	162
	Carnarvon (Belan Fort)	Hon. F. G. Wynn	5	1 0	15	33·9	40·25	..	..
D	Llanbeblig (Cefn Rhos)	Miss A. Preece	8	1 0	..	..	45·95	194	162
d	Llanberis (Llandinorwig School)	John Roberts, Esq.	5	0 10	850	59·4	71·53	..	..
D	Bethesda (St. Ann's Vicarage)	Rev. Canon W. Morgan	5	1 6	500	59·8	62·13	201	157
D	Bethesda (Penrhyn Quarries)	A. H. Richards, Esq.	8	1 0	527	65·8	65·03	188	161
D	Bangor (Penrhyn Castle Gdns.)	Mr. J. Kneller	5	1 0	150	..	40·88	174	154
D	Bangor (Town Hall)	Water Engineer & Surveyor	8	1 6	50	..	42·16	180	152
D	Aber (University Coll. Farm)	Prof. R. G. White	5	1 0	80	..	44·28	179	151
D	Llanfairfechan (Cae Cawr)	W. Timmins, Esq.	5	1 0	400	..	38·97	164	140
	Llanfairfechan School	D. Samuel, Esq.	5	1 0	103	37·9	39·30	..	..
D	Penmaenmawr (Plas Uchaf)	R. W. Barnes, Esq.	5	1 6	470	..	39·80	144	128
D	Penmaenmawr (Glan-y-Coed)	W. H. Brady, Esq.	5	1 6	100	..	37·33	159	145

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
CARNARVON—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—ERCH & C. 155 sq. mi.								
D Abersoch	Lady Winterbotham	8	1 0	100	44·3	42·54	184	152
Pwllheli (Bodfean Hall)	Hon. F. G. Wynn	5	1 0	155	43·7	50·53	..	..
D Pwllheli (Bodfean Hall Gdns.)	Hon. F. G. Wynn	5	3 9	155	43·2	48·88	174	152
5.—GLASLYN. 50 sq. mi.								
D Portmadoc (Wern)	R. M. Greaves, Esq.	5	1 0	90	..	58·47	193	160
Beddgelert (Co. School)	D. Jones, Esq.	5	1 2	133	..	105·79	..	166
Snowdon (Wenallt)	No. 6N. Wales Power Co., Ltd.	5	1 2	1050	..	149·70	..	..
D Snowdon (Cwm Dyli)	No. 11N. Wales Power Co., Ltd.	5	1 0	310	117·9	132·79	217	199
Snowdon (Cwm Dyli, Old Rd.)	14N. Wales Power Co., Ltd.	5	0 10	325	..	126·42	..	..
Snowdon (Llewedd)	No. 2N. Wales Power Co., Ltd.	5	1 3	1485	..	115·33?	..	..
M Snowdon (Delta)	No. 7N. Wales Power Co., Ltd.	5	1 0	1435	..	171·50	..	..
M Snowdon (Glaslyn)	No. 3N. Wales Power Co., Ltd.	5	0 8	2050	..	146·32	..	..
M Snowdon (Teyrn)	No. 1N. Wales Power Co., Ltd.	5	1 0	1086	..	151·83	..	..
D Snowdon (Llydaw Intake)	No. 10N. Wales Power Co., Ltd.	5	1 0	1480	..	146·88	213	203
d Snowdon (L. Llydaw Copper M.)	9N. Wales Power Co., Ltd.	5	1 5	1480	..	164·58	..	..
M Snowdon (Llyn Llydaw)	No. 5N. Wales Power Co., Ltd.	5	1 0	1470	..	134·75	..	..
M Snowdon (Crib Goch)	No. 8N. Wales Power Co., Ltd.	5	1 3	2340	..	173·69	..	..
ANGLESEY. (Area, 275 sq. mi.)								
D Llangadwaladr (Bodorgan)	Mr. W. Pilgrim	5	1 0	100	37·5	41·19	178	148
Llanfaelog	H. S. Lowe, Esq., J.P.	5	1 0	50	32·0	33·48	..	..
D Llangefni (Fronheulog)	A. H. Withinshaw, Esq.	5	1 0	125	..	43·50	159	146
d Llansadwrn (Treffos)	C. Panton Vivian, Esq.	..	..	318	..	44·17	..	..
Beaumaris (Fryars) (R)	Mrs. Burton	10	2 0	20	37·4	39·27	..	..
D Llangwllog (Trescawen)	Mrs. Pritchard-Rayner	5	1 0	239	42·2	45·22	187	170
D Bodedern (Presaddfed)	Lt.-Col. W. A. Fox-Pitt	5	1 0	150	38·9	43·47	178	158
D Holyhead (Salt Island) (+A)	The Meteorological Office	8	1 0	25	34·8	37·40	178	132
D Llanerchymedd Llwydiarth Esgb.	Miss J. E. Prichard	5	1 0	175	38·1	43·06	188	161
D Penrhoslligwy School	T. Rowlands, Esq.	5	1 0	140	39·9	40·90	166	147
D Lligwy	Lord Boston	6	1 0	170	34·6	34·87	169	137
D Amlwch (Dyffryn Adda)	Major T. Fanning Evans	5	1 3	178	36·3	39·53	176	144
ISLE OF MAN. (Area, 227 sq. mi.)								
D Castletown (Langness)	Com'rs. of N. Lighth's	5	1 9	38	..	37·31	159	137
D Port St. Mary (Beach Villa)	C. F. Butterworth, Esq.	5	3 0	40	..	31·63	161	138
Santan Vicarage	Rev. R. Jones	5	1 0	245	..	39·79	176	146
D Douglas (Borough Cemetery)	H. A. Bridge, Esq.	8	1 0	284	41·2	45·21	192	154
D Douglas (Clypse Res., Onchan)	Alan Boothman, Esq., C.E.	8	1 0	440	43·9	44·13	195	149
D West Baldwin Reservoir *Old g*	Alan Boothman, Esq., C.E.	8	1 0	480	..	55·85	199	168
D West Baldwin Reservoir *New g*	Alan Boothman, Esq., C.E.	5	1 0	470	..	60·43	199	169
d Maughold Head	Com'rs. of N. Lighth's.	5	0 6	230	..	37·10	156	146
D Ramsey (Town Hall)	The Town Surveyor	8	21 0	18	..	46·51	170	129
D Ramsey (North Promenade)	The Town Surveyor	5	1 0	15	..	47·93	180	138
CHANNEL ISLANDS. (Area, 76 sq. mi.)								
JERSEY. 45 sq. mi.								
D Pontac	Mrs. E. G. Barnes*	5	1 6	30	..	36·43	157	121
D Grouville	L. de Carteret Malet, Esq.*	5	1 6	70	..	39·64	157	127
D St. Helier (Harbour Office)	Harbour Master	8	0 10	28	..	35·69	140	115
D St. Helier (St. Louis O.) (New)	Rev. C. Burdo, S.J.	8	1 5	180	31·9	38·88	162	120
D St. Brelade (La Sergenté)	J. E. Le Boutillier, Esq.	5	1 4	194	..	36·39	161	121
D St. Aubins (Belle Vue)	C. J. Sumner, Esq.	5	1 2	220	..	38·92	163	122
d St. Saviours (Beauvoir)	Capt. G. T. Robin	5	0 10	200	..	(35·26)	..	..
D St. Lawrence (Little Grove)	R. E. B. Voisin, Esq.	5	1 0	60	..	40·38	159	125
D Millbrook (St. Helier W.W.)	A. J. Jenkins, Esq., C.E.	5	0 11	53	..	41·83	160	121
D St. Ouen's Manor	R. Malet de Carteret, Esq.	5	1 0	270	..	38·51	162	127
D Trinity Rectory	Rev. S. J. Gruchy	5	1 0	375	..	(37·85)	(168)	(122)

*per A. J. Jenkins, Esq.

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
CHANNEL ISLANDS—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
GUERNSEY. 25 sq. mi.								
D St. Peter in the Wood (Hawthorns)	L. J. Nicolle, Esq.	5	1 0	100	..	30·26	149	125
D St. Martin's (Les Blanches)	B. T. Rowswell, Esq.	5	1 0	309	..	36·89	162	128
D St. Martin's (Hautnez)	A. A. Allain, Esq., C.E.	5	0 8	336	..	35·93	158	125
D Fort Road (La Cotte)	Major S. Carey Curtis	5	1 0	285	..	37·59	155	124
D Villiaze	A. A. Allain, Esq., C.E.	5	0 6	302	..	36·62	155	119
D St. Andrew (Vauxbelets Col.)	The Director	5	1 5	260	..	34·82	155	122
D St. Peter Port (Grange Road)	H. Vere Miles, Esq.	5	1 0	175	33·2	39·89	162	124
D St. Peter Port (Market Street)	B. T. Rowswell, Esq.	5	52 8	99	..	38·27	160	120
D Castel (King's Mills)	A. A. Allain, Esq., C.E.	5	2 0	47	..	35·94	154	125
D Rohais (Colborne Villa)	T. J. Guilbert, Esq., C.E.	5	1 0	116	..	37·46	165	128
D Menheniot Vineries	Major H. Roper	5	1 1	97	..	39·53	151	143
D L'Ancresse (Doyle Pavilion)	H. Vere Miles, Esq.	5	1 0	40	..	33·51	152	125
SARK. 2 sq. mi.								
D Pointe Robert	B. T. Rowswell, Esq.		1 0	214	..	34·04	160	129
HERM. 1 sq. mi.								
D Herm	Sir Percival Perry	5	1 3	8	..	31·55	147	99
ALDERNEY. 3 sq. mi.								
D St Anne (Gros Nez House)	B. T. Rowswell, Esq.	5	1 6	214	..	40·40	155	127

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
WIGTOWN. (Area, 488 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—LOCH RYAN. 46 sq. mi.								
Loch Ryan Lighthouse	Com'rs. of N. Lighthouses	5	1 3	10	..	45·80	150	130
2.—WESTERN GALLOWAY. 44 sq. mi.								
D Logan House	K. McDouall, Esq.	8	1 0	80	37·3	42·53	255	163
Corsewall	Com'rs. of N. Lighthouses	8	4 1	48	..	45·91	..	152
3.—LUCE BAY. 186 sq. mi.								
D Whithorn (Physgill)	F. B. Hopkins, Esq.	5	1 0	170	36·4	38·87	196	151
D Whithorn (Glasserton)	Adm. Johnston Stewart, C.B.	5	1 0	225	39·5	41·80	196	154
D Port William (Monreith)	L. R. Younger, Esq.	5	1 0	145	38·5	43·39	192	147
D Stoneykirk (Ardwell House)	Sir E. Orde Stewart, Bt.	8	3 0	65	36·3	42·77	218	167
D New Luce (Public School)	J. Mackay, Esq.	5	1 0	200	46·6	50·20	190	162
4.—CREE & WIGTOWN BAY. 212 sq. mi.								
Garliestown (Galloway House)	Capt. McEacharn	5	1 6	30	39·1	47·43	178	148
D Kirkcowan (Craighlaw)	Major W. M. F. Hamilton	5	0 9	300	48·3	58·22	212	172
D Newton Stewart (Little Barraer)	Brig.-Gen. G. M. P. Hawthorn, C.B.E., D.S.O.	5	1 0	180	..	53·45	209	162
D Newton Stewart (Duncree)	Maj.-Gen. Sir Keith Stewart K.C.B.	8	5 5	125	..	52·97	215	162
KIRKCUDBRIGHT. (Area, 902 sq. mi.)								
1.—DOON. 16 sq. mi.								
2.—CREE & WIGTOWN BAY. 222 sq. mi.								
d Borgue (Corseyard)	J. Douglas Brown, Esq.	5	1 0	50	39·8	41·87	..	143
3.—DEE. 377 sq. mi.								
Little Ross Lighthouse	Com'rs. of N. Lighthouses	8	4 8	136	..	32·61	..	144
D Mossdale (Hensol)	Mrs. Cuninghame	8	1 0	200	51·7	56·62	234	168
D Dalry (Glendarroch)	Miss M. Barbour	5	2 0	190	54·5	56·32	209	172
D Dalry (Garroch)	Arthur Young, Esq.	8	1 3	250	59·7	67·06	214	177
D Dalry (Forrest Lodge)	Sir John Wood, Bart.	5	1 0	500	63·2	75·06	212	174
D Carsphairn (Shiel)	S. Wilson, Esq.	5	1 0	835	73·9	79·81	222	194
D Carsphairn (Knockgray)	Miss Clark Kennedy	8	1 0	641	56·0	59·87	223	176
4.—URR & C. 196 sq. mi.								
Auchencairn (Torr House)	Thomas Ovens, Esq.	5	1 0	50	47·1	53·99	..	..
D Dalbeattie (Kirkennan)	Wellwood Maxwell, Esq.	5	0 9	30	46·2	59·12	180	176
D Dalbeattie (Drumstinchall)	Mrs. R. F. Hanbury	8	0 11	400	46·1	51·32	203	168
5.—NITH & C. 91 sq. mi.								
Dumfries (Cargen)	Col. R. F. Dudgeon	5	0 10	85	44·8	49·26	..	..
D Lochrutton (Dumfries W.W.)	J. Smellie, Esq.	5	1 0	273	44·0	50·36	228	167
D Dumfries (Lincluden House)	Miss P. A. Young, M.B.E.	5	1 0	60	39·5	41·76	171	150

DIVISION XII.—SOUTHERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
DUMFRIES. (Area, 1074 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—CLYDE—Right Bank Tributaries. 5 sq. mi.								
2.—URR. 6 sq. mi.								
3.—NITH & C. 421 sq. mi.								
D Ruthwell (Comlongon Castle)	Earl of Mansfield	5	1 0	67	..	38·12	175	145
D Mouswald (Schoolhouse)	Jas. F. Young, Esq.	8	0 9	116	..	48·58	213	157
D Dumfries (Crichton Roy. Inst.)	C. C. Easterbrook, Esq., M.D.	5	1 0	140	36·8	38·52	177	142
D Carnsalloch	Miss K. M. Buchanan	5	0 8	20	..	40·64	180	162
D Moniaive (Glencrosh)	Miss Macmillan	5	1 1	400	..	56·63	200	177
D Durisdeer (Drumlanrig)	R. A. S. Ritchie, Esq.	5	0 9	191	43·6	50·67	212	163
4.—ANNAN. 367 sq. mi.								
Dalton (Whitecroft)	Sir W. Maitland-Heriot, K.B.E.	5	0 6	240	..	44·22	205	164
D Dalton (Kirkwood)	Captain J. Steel	5	1 0	250	..	48·36	249	166
d Lockerbie (Castle Milk)	Mr. David McIntosh	5	1 9	199	..	46·50	..	..
M Lockerbie (Thornbank)	W. Murdoch, Esq.	5	1 0	259	..	43·35	..	..
D Lochmaben (Esthwaite)	W. J. Halliday, Esq., M.B.E.	5	1 0	166	41·9	44·76	198	159
5.—ESK. 275 sq. mi.								
D Eaglesfield (Springkell Gdns.)	Mr. Charles George	5	0 11	300	..	47·04	166	152
M Canonbie (Byreburnfoot)	Mr. David Crabbe	3	0 9	160	42·1	43·75	..	..
D Canonbie (Irvine House)	J. H. Milne Home, Esq.	5	0 9	200	..	49·93	192	153
d Langholm (Drove Road)	Mrs. Jackson	5	0 9	270	..	54·93	165	145
Langholm (Ewes)	Mrs. Lyall	5	1 0	445	53·4	52·35	..	..
D Eskdalemuir Observatory (+A)	The Meteorological Office	8	1 4	794	56·3	63·56	219	177
ROXBURGH. (Area, 666 sq. mi.)								
1.—NORTH TYNE. 6 sq. mi.								
2.—TWEED LOWER—Right Bank Tributaries. 57 sq. mi.								
D Kelso (Lempitlaw)	J. Stirling, Esq.	5	0	635	28·1	23·59	163	116
3.—TWEED—Teviot & c. 431 sq. mi.								
d Hawick (Wolfelee)	Mrs. Browne	5	0 10	537	37·6	33·21	154	140
d Hawick (Branxholm Park)	C. W. Grieve, Esq.	5	0 6	457	33·4	34·79	178	143
D Denholm (Spital Tower)	T. G. Leadbetter, Esq.	5	0 9	410	32·7	27·59	182	137
D Jedburgh (Jedneuk)	T. Yool, Esq.	5	1 0	271	26·3	23·46	167	114
d Jedburgh (Crailing)	Major J. A. Paton	4	1 1	195	..	24·48	..	..
D Ancrum (Monteviot)	Bertram Talbot, Esq.	5	1 0	250	29·8	24·17	165	119
Linton (Clifton Park)	T. R. B. Elliot, Esq.	5	1 0	250	..	25·48	..	..
D St. Boswells (The Fens)	J. J. Fairbairn, Esq.	5	1 6	260	28·0	23·09	150	122
w St. Boswells (Monksford)	Lt.-Col. A. Mitchell	5	0 11	320	26·9	25·05	..	..
d Kelso (Springwood Park)	Mr. W. Chaplin	5	1 0	130	26·2	21·18	..	..
4.—TWEED—Ettrick & c. 10 sq. mi.								
D Melrose (Asylum) *gauge* A	T. C. Mitchell, Esq.	5	0 6	480	31·4	27·01	176	125
D Melrose (Asylum) *gauge* B	T. C. Mitchell, Esq.	5	1 0	480	30·8	25·50	176	125
5.—TWEED—Gala. 6 sq. mi.								
6.—TWEED—Leader & c. 25 sq. mi.								
D Melrose (Drygrange)	A. T. Roberts, Esq.	5	1 0	360	27·5	23·42	172	109
7.—TWEED, LOWER—Left Bank Tributaries. 25 sq. mi.								
D Kelso (Broomlands)	J. C. Scott, Esq.	5	1 0	195	26·0	22·42	186	106
8.—ESK. 106 sq. mi.								
d Newcastleton Forest	Forestry Commission	5	1 0	700	..	50·55	..	..

DIVISION XIII.—SOUTH-EASTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
SELKIRK. (Area, 268 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—TWEED—Teviot & c. 34 sq. mi.								
2.—TWEED—Ettrick & c. 192 sq. mi.								
M Edinburgh W.W.(Meggat Hd.)	Messrs. Leslie & Reid, C.E	8	1 3	1496	54·5	47·88?	..	..
Selkirk (Lindean Reservoir)	S. Pittillo, Esq.	5	1 0	900	31·2	27·36	..	..
3.—TWEED, UPPER—Right Bank Tributaries. 17 sq. mi.								
4.—TWEED, UPPER—Left Bank Tributaries. 19 sq. mi.								
d Gaddenfoot (Fairnilee)	Late Alex. F. Roberts, Esq.	5	1 0	450	..	(28·43)	..	..
Galashiels (The Peel Clovenfords)	W. R. Ovens, Esq.	5	1 0	450	35·5	33·80	..	..
5.—TWEED—Gala. 6 sq. mi.								
D Galashiels (Abbotsford Road)	Dr. J. W. Somerville	5	0 9	416	31·7	24·65	176	104
PEEBLES. (Area, 348 sq. mi.)								
1.—TWEED, UPPER—Right Bank Tributaries. 127 sq. mi.								
M Edin. WW (Ravenscraig). 3	Messrs. Leslie & Reid, C.E.	5	1 3	2258	..	74·87	..	..
M Edin. WW (Gameshope Loch). 4	Messrs. Leslie & Reid, C.E.	5	1 3	1860	..	70·60	..	..
M Edin. WW (Loch Craig Head). 2	Messrs. Leslie & Reid, C.E.	5	1 0	2627	..	59·87	..	..
M Edin. WW (Gameshope Farm). 5	Messrs. Leslie & Reid, C.E.	5	1 3	1538	..	66·58?	..	..
M Edin. WW (Talla Linns Foot). 6	Messrs. Leslie & Reid, C.E.	8	1 3	966	..	59·01	..	..
M Edin. WW (Quarter Hill). 7	Messrs. Leslie & Reid, C.E.	8	1 3	1196	..	48·62	..	..
D Edin. WW (Victoria Lodge) 8	Messrs. Leslie & Reid, C.E.	5	1 3	900	..	48·90	208	162
2.—TWEED, UPPER—Left Bank Tributaries. 192 sq. mi.								
D Stobo Castle	Mr. J. Finnis	5	0 10	594	34·9	37·16	189	147
Peebles (Hydro.)	R. Turner, Esq., O.B.E.	5	0 9	700	..	32·60	212	152
D West Linton (Woodlea Cottage)	Messrs. Leslie & Reid, C.E.	5	1 0	801	..	33·25	225	160
D West Linton (Taieri)	W. Mackie, Esq.	5	1 0	770	..	34·48	247	150
3.—ESK. 23 sq. mi.								
D Eddlestone (Portmore Res.)	Messrs. Leslie & Reid, C.E.	11	1 0	1000	..	35·64	228	159
d Carlops (North Esk Res.)	Mr. J. Gilmour	5	1 6	1150	..	34·81	176	(144
4.—CLYDE—Right Bank Tributaries. 6 sq. mi.								
BERWICK. (Area, 457 sq. mi.)								
1.—TWEED—Gala. 6 sq. mi.								
2.—TWEED—Leader. 92 sq. mi.								
D Earlston (Cowdenknowes)	Mr. T. J. Fleming	5	1 2	300	28·8	28·39	145	110
M Lauder (Burncastle)	J. G. S. Turnbull, Esq.	5	1 0	900	30·2	29·57	..	..
M Earnscleugh Burn (Blythe Rig)	J. G. S. Turnbull, Esq.	5	1 0	1200	36·1	34·95	..	..
3.—TWEED. LOWER—Left Bank Tributaries. 115 sq. mi.								
Coldstream (Lochton)	J. Aitchison, Esq.	5	1 0	151	25·9	23·15	..	..
d Coldstream School	D. Campbell Hardie, Esq.	5	1 0	100	..	22·83	173	111
D Coldstream (The Hirsel)	Mr. D. Black	5	1 4	130	25·6	21·48	154	104
D Swinton House (*Snowdon*) (+ A)	Rev. A. E. Swinton	5	1 0	200	26·4	23·52	181	130

DIVISION XIII.—SOUTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
BERWICK—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—TWEED—Whiteadder. 164 sq. mi.								
⊙ Marchmont House	Mr. Peter Ross	5	1 0	498	32·2	28·13	202	121
⊙ Duns (Nisbet House Gdns.)	Mr. W. Cowieson	5	1 0	290	26·8	25·12	190	124
D Duns (Oxendean)	A. C. Fraser, Esq.	8	0 7	600	..	28·33	182	136
D Duns Castle	F. S. Hay, Esq.	5	1 0	500	30·8	27·79	200	128
D Duns (Manderston)	Mr. F. J. Marshall	5	1 6	356	30·7	26·79	170	130
5.—EAST COAST STREAMS. 80 sq. mi.								
St. Abb's Head	Com'rs. of N. Lighthouses	8	5 6	212	23·6	22·70	..	..
HADDINGTON. (Area, 267 sq. mi.)								
1.—TWEED—Leader. 1 sq. mi.								
2.—TWEED—Whiteadder. 35 sq. mi.								
3.—EAST COAST STREAMS. 69 sq. mi.								
M Garvald (Donolly Reservoir)	A. Robertson, Esq., C.E.	5	1 0	550	32·8	25·70	..	..
M Garvald (Thorter Reservoir)	A. Robertson, Esq., C.E.	5	1 0	700	..	24·82	..	..
Barnsness Lighthouse	Com'rs. of N. Lighthouses	5	1 2	20	..	19·83	..	..
D Dunbar (Belhaven Hill)	W. Ingham, Esq.	..	..	..	24·2	20·08	159	113
4.—TYNE & C. 114 sq. mi.								
W Lammermuir H. (West Hopes)	J. Ross, Esq., C.E.	5	1 0	736	34·4	31·28	..	..
W LammermuirH.(StobshielRes.)	B J. Ross, Esq., C.E.	5	1 0	950	33·0	29·61	..	..
W LammermuirH.(Stobshiel Res.)	A. J. Ross, Esq., C.E.	5	1 0	998	..	23·82?	..	..
W LammermuirH.(LammerlochRes.)	J. Ross, Esq., C.E.	5	1 0	900	..	28·40	..	..
D Lammermuir H. (Stobshiel Fil.)	J. Ross, Esq., C.E.	5	1 0	650	..	22·12?	132	104
d Prestonkirk (Smeaton)	Sir J. Buchan-Hepburn, Bt.	5	1 0	100	24·9	24·68	..	..
5.—FIRTH OF FORTH. 48 sq. mi.								
D East Fortune Sanatorium	The Clerk of Works	5	1 4	101	..	20·13	123	101
D Dirleton	W. S. Curr, Esq.	5	1 6	149	..	19·16	151	96
D North Berwick Reservoir	A. Robertson, Esq., C.E.	5	1 0	150	25·4	22·58	168	121
D North Berwick (Hospital)	A. Robertson, Esq., C.E.	5	1 0	152	22·8	21·09	159	114
6.—INSULAR.								
Fidra	Com'rs. of N. Lighthouses	..	..	..	..	17·82	..	..
MIDLOTHIAN. (Area, 369 sq. mi.)								
1.—TWEED—Gala. 68 sq. mi.								
M Stow (Cragdale)	J. Pringle, Esq.	5	0 6	642	..	33·75	..	..
2.—TYNE. 28 sq. mi.								
D Oxenford Castle Gardens	Mr. D. M. Welsh	5	1 6	409	..	21·88	191	118
3.—FIRTH OF FORTH. 3 sq. mi.								
4.—ESK. 116 sq. mi.								
M Moorfoot Hills (Bowbate)	Messrs. Leslie & Reid, C.E.	11	0 6	1260	..	43·22	..	..
D Moorfoot Hills (Gladhouse Res.)	Messrs. Leslie & Reid, C.E.	5	0 8	915	35·3	33·32	218	161
D Moorfoot Hills (Rosebery)	Messrs. Leslie & Reid, C.E.	5	0 9	750	..	27·75	202	142
D Moorfoot Hills (Edgelaw)	Messrs. Leslie & Reid, C.E.	5	0 10	654	..	29·12	201	146
D Gorebridge	W. S. B. Brown, Esq.	5	1 0	500	..	26·23	222	148
M Pentland Hills (Harehill)	Messrs. Leslie & Reid, C.E.	11	1 7	1397	..	32·66	..	..
D Pentland Hills (Martyrs Cross)	Messrs. Leslie & Reid, C.E.	5	1 0	750	..	32·85	198	150
D Pentland Hills (Loganlea)	Messrs. Leslie & Reid, C.E.	5	1 0	811	..	31·81	180	135

DIVISION XIII.—SOUTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
MIDLOTHIAN—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—ESK—(*con.*)								
D Pentland Hills (Glencorse Fil.)	Messrs. Leslie & Reid, C.E.	5	1 0	638	..	30·04	187	142
D Pentland Hills (Glen Cottage)	Messrs. Leslie & Reid, C.E.	5	1 2	739	..	33·91	192	146
D Milton Bridge (Bush)	J. S. Abernethy, Esq.	5	1 0	600	..	29·84	181	138
D Newbattle (Public School)	W. Fowler, Esq.	5	4 3	300	..	24·45	149	110
5.—ALMOND & C. 153 sq. mi.								
D Pentland Hills (Crosswood)	Messrs. Leslie & Reid, C.E.	5	1 0	950	..	38·36	233	156
D Pentland Hills (Harperrig)	Messrs. Leslie & Reid, C.E.	5	1 0	900	..	35·54	211	151
D Pentland Hills (Morton)	Messrs. Leslie & Reid, C.E.	5	1 0	749	..	33·76	219	146
D West Calder (Addiewell)	Scottish Oils, Ltd.	12	21 0	620	35·7	34·79	173	130
D Pentland Hills (Boghall)	(+A) College of Agriculture	8	1 0	646	..	28·30	182	134
D Pentland Hills (Harlaw Res.)	Messrs. Leslie & Reid, C.E.	5	1 0	800	..	29·80	192	130
M Pentland Hills (Bonally Res.)	Messrs. Leslie & Reid, C.E.	11	0 6	1250	..	30·80	..	..
D Pentland Hills (Clubbiedean Rs.)	Messrs. Leslie & Reid, C.E.	4	0 6	773	..	28·03	189	134
M Pentland Hills (Swanston)	Messrs. Leslie & Reid, C.E.	5	0 6	700	..	26·48	..	..
D Pentland Hills (Fairmilehead)	Messrs. Leslie & Reid, C.E.	5	1 0	590	..	26·23	186	118
D Liberton (Alnwick Hill)	Messrs. Leslie & Reid, C.E.	5	1 0	407	..	24·23	170	114
D Colinton (Firhill Tank)	Messrs. Leslie & Reid, C.E.	5	0 6	412	..	25·54	196	116
D Liberton (College Garden)	College of Agriculture	5	1 0	190	..	24·36	173	121
D Edinburgh (Royal Observatory)	Prof. R. A. Sampson, F.R.S.	8	1 0	441	24·7	24·04	182	115
D Edinburgh (Napier Road)	A. Harrison, Esq.	5	1 0	300	..	23·15	178	110
D Edinburgh (The Academy)	M. McC. Fairgrieve, Esq.	5	1 0	70	..	23·96	177	117
D Edinburgh (Univ. Engin. Lab.)	Prof. Sir T. Hudson Beare	5	1 0	227	26·0	22·93	162	107
D Edinburgh (St. Roque)	Mr. H. B. Waugh	5	0 10	270	..	23·19	169	115
D Edinburgh (City Observatory)	J. McDougal Field, Esq.	8	1 0	348	..	23·34	183	110
D Edinburgh (Royal Botanic Gd.)	Prof. W. Wright-Smith	8	0 10	74	..	22·73	144	111
D Davidson's Mains (Broomfield)	J. I. Balfour-Melville, Esq.	5	0 10	42	..	22·28	146	123
6.—CLYDE—Right Bank Tributaries. 1 sq. mi.								
LINLITHGOW. (Area, 120 sq. mi.)								
1.—ALMOND & C. 60 sq. mi.								
M Uphall No. 7	Messrs. Leslie & Reid, C.E.	8	1 4	790	..	33·03	..	..
M Uphall No. 8	Messrs. Leslie & Reid, C.E.	8	1 4	577	..	32·77	..	..
M Uphall No. 6	Messrs. Leslie & Reid, C.E.	8	1 4	680	..	32·70	..	..
M Uphall No. 3	Messrs. Leslie & Reid, C.E.	8	1 2	711	..	32·64	..	..
D Uphall (Bangour Asylum)	Col. J. Keay, M.D.	5	1 0	587	..	30·16	218	146
d Uphall	Scottish Oils, Ltd.	8	0 10	380	..	30·39	..	..
D Dalmeny House	Mr. D. T. Johnston	5	1 0	50	..	23·91	153	116
2.—FORTH—Right Bank Tributaries. 59 sq. mi.								
D Bathgate (Filters) No. 1	A. L. Reid, Esq.	5	0 9	640	..	31·85	179	137
M Bathgate (Petershill Res.) No. 2	A. L. Reid, Esq.	5	0 9	710	..	29·02	..	..
M Bathgate (Ballencrieff R.) No. 3	A. L. Reid, Esq.	5	0 9	800	..	30·30	..	..
M Torphichen (Lochcote)	Wm. Beattie, Esq.	5	0 4	550	..	31·11	..	..
D Uphall (Beecraigs)	Messrs. Leslie & Reid, C.E.	5	1 0	531	..	31·25	184	145
M Carribber Reservoir	Wm. Beattie, Esq.	5	0 4	400	..	33·12	..	..
D Linlithgow (Grange)	H. M. Cadell, Esq.	5	0 9	430	..	30·45	183	139
D Linlithgow (Preston House)	Mr. C. Blair	5	1 0	380	..	32·91	187	139
D Linlithgow Academy	J. Beveridge, Esq.	5	1 0	170	..	31·96	182	134
3.—CLYDE.—Right Bank Tributaries. 1 sq. mi.								

DIVISION XIV.—SOUTH-WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
LANARK. (Area, 881 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—TWEED, UPPER—Left Bank Tributaries. 20 sq. mi.								
2.—ALMOND. 14 sq. mi.								
3.—FORTH—Right Bank Tributaries. 9 sq. mi.								
4.—CLYDE—Right Bank Tributaries. 378 sq. mi.								
D Crawford (Camps Res.)	Jas. McMillan, Esq.	11	0 10	969	..	50·49	199	164
M Coulter Reservoir	No. 1. L. Costley, Esq., C.E.	11	1 0	1250	..	54·70	..	..
Lamington (Cowgill Reservoir)	J. Chisholm, Esq., C.E.	5	1 0	1012	..	34·58	..	..
D Biggar (Shieldhill)	Miss Dunlop	5	1 0	850	..	33·25	220	155
D Lamington House	Rt. Hon. Lord Lamington.	5	1 0	800	..	39·25	203	163
Carluke (Coldstream Reservoir)	L. Costley, Esq., C.E.	11	1 0	800	..	38·30	..	..
Wishaw (Kirk Road)	J. Y. Scott, Esq.	6	1 0	480	..	34·02	..	..
Wishaw (Coronation Street)	A. Hinshelwood, Esq.	5	1 3	510	..	32·92	..	..
Glasgow (Tollcross Park)	W. Besant, Esq.	5	0 6	85	..	42·85	208	175
Glasgow Green	W. Besant, Esq.	5	0 6	35	..	41·38	211	170
Glasgow (Alexandra Park)	W. Besant, Esq.	5	0 6	141	..	40·05	207	165
D Glasgow (Riddrie)	K. McKenzie Topping, Esq.	5	1 0	252	..	41·05	215	163
Glasgow (Botanic Gardens)	W. Besant, Esq.	5	0 6	110	..	39·08	197	155
D Glasgow University	Prof. J. R. Currie, M.D.	8	1 0	139	..	38·82	200	154
Glasgow (Kelvingrove Park)	W. Besant, Esq.	5	0 6	48	..	39·98	169	163
Glasgow (Victoria Park)	W. Besant, Esq.	5	0 6	30	..	39·85	189	164
Glasgow (Ruchill Park)	W. Besant, Esq.	5	0 6	222	..	37·23	196	147
Glasgow (Springburn Park)	W. Besant, Esq.	5	0 6	352	..	43·01	226	172
Clarkston (Roughrigg Res.)	J. Chisholm, Esq., C.E.	5	1 0	661	..	35·22	..	..
D Airdrie (Broomknoll Street)	J. Chisholm, Esq., C.E.	5	1 0	402	..	36·23	196	155
D Gartcosh (Gartloch Hospital)	Mr. James McEwen	5	1 1	291	..	40·99	209	163
d Caldercruix (Hillend Res.)	Mr. Boyd Drummond	5	3 6	620	37·3	(38·04)	..	..
5.—CLYDE—Left Bank Tributaries. 448 sq. mi.								
Elvanfoot (Potrenick Burn)	L. Costley, Esq., C.E.	11	1 0	1018	..	65·80	..	..
Elvanfoot (Peden Reservoir)	L. Costley, Esq., C.E.	11	1 0	1030	..	64·80	..	..
D Douglas (Kilncroft)	The Earl of Home	8	1 1	696	..	44·07	179	149
D Strathaven (Glengavel Res.)	J. McMillan, Esq., C.E.	5	1 0	880	..	50·05	220	182
D Strathaven (Dungavel)	A. K. Foulis, Esq.	5	1 0	798	..	59·48	213	175
D Strathaven (Dunside Res.)	J. McMillan, Esq., C.E.	5	0 10	1010	..	54·46	220	180
d Strathaven (Kype Res.)	W. H. Purdie, Esq., C.E.	11	3 0	941	..	55·41	182	169
W Lesmahagow (Auchtyfardle)	Major T. E. Lander	5	1 0	578	..	40·16	..	..
D Strathaven (East Overton Ho.)	H. Lee Dykes, Esq.	5	1 0	700	..	45·58	204	169
D Stonehouse Sanatorium	W. A. Chapman, Esq.	5	0 7	526	..	39·55	206	162
D Stonehouse (Glassford Filters)	J. McMillan, Esq., C.E.	5	0 9	775	..	43·78	206	160
D Hamilton W. W. (Townhill)	W. H. Purdie, Esq., C.E.	7	1 0	436	35·6	44·23?	211	167
D Hamilton (Scott Street)	S. B. Becket, Esq.	5	1 0	260	..	37·84	189	152
D Hamilton (Woodlea)	W. Fletcher, Esq.	5	1 4	192	..	36·84	201	150
Busby (Thorntonhall)	A. H. Bishop, Esq.	5	1 0	440	..	44·32	223	167
Carmunnock (Carnbooth)	R. Robertson, Esq., C.E.	5	1 0	365	..	44·34	207	165
D Cambuslang (Greenlees Filters)	J. McMillan, Esq., C.E.	5	1 0	322	..	40·61	210	168
D Glasgow (Dumbreck)	W. Gillies, Esq., Jr., LL.B.	5	1 6	76	..	42·09	213	162
d Glasgow (Maxwell Drive)	Rev. F. C. Newbery	5	1 0	60	..	40·87	..	162
Glasgow (Bellahouston Park)	W. Besant, Esq.	5	0 6	160	..	40·12	220	175
Glasgow (Elder Park)	W. Besant, Esq.	5	0 6	40	..	40·82	200	159
6.—IRVINE. 2 sq. mi.								
7.—AYR. 1 sq. mi.								
8.—NITH. 2 sq. mi.								
9.—ANNAN. 7 sq. mi.								

DIVISION XIV.—SOUTH-WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
AYR. (Area, 1135 sq. mi.).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—CLYDE—Left Bank Tributaries. 20 sq. mi.								
B Glengarnock (Chemical Works)	A. Shanks, Esq.	8	15 0	105	54·4	60·68	211	166
Kilbirnie (Hole House Filters)	H. Mactaggart, Esq	5	1 0	350	..	(73·76)	..	..
M Kilbirnie (Pundeavon Res.)	H. Mactaggart, Esq.	5	1 0	900	..	89·86	..	..
2.—FIRTH OF CLYDE. 60 sq. mi.								
D Stevenston (Greenhead Filters)	Gilbert Christie, Esq., C.E.	5	1 0	186	41·6	45·99	202	165
Ardrossan (Busbie Res.)	J. C. Duncan, Esq., C.E.	11	..	400	..	49·55	..	..
West Kilbride School	Alex. M. Fleming, Esq.	5	0 11	200	..	48·20	..	..
D West Kilbride (Hunterston)	Lt.-Gen. Sir A. Hunter-Weston, K.C.B.	5	1 0	40	42·4	49·20	192	161
D Skelmorlie (West Park)	J. Wilkinson, Esq.	5	1 6	150	53·5	59·77	201	184
M Shaws W.W. (Knockencorsan)	J. MacAlister, Esq., C.E.	6	1 0	1040	61·8	80·50	..	..
M Shaws W.W. (Largs Road)	J. MacAlister, Esq., C.E.	6	1 0	910	57·0	69·43	..	..
3.—IRVINE & C. 283 sq. mi.								
B Monkton (Orangefield)	H Carrick Webster, Esq.	5	1 0	30	..	41·99	191	159
Prestwick (Ladykirk Filters)	F. Pritty, Esq., C.E.	6	1 2	179	..	40·65	207	175
D Dundonald (Coodham)	Jas. McGran, Esq.	12	4 0	270	..	49·74?	191	162
Troon (Collenan Reservoir)	M. S. Brodie, Esq., C.E.	5	1 0	203	..	42·42	..	..
D Irvine (Gailes)	H. W. Aitken, Esq.	5	1 0	12	35·9	45·15	202	159
D Kilmarnock (Agricultural Coll.)	The Principal	8	1 2	90	37·3	44·49	199	170
Darvel (Kirkland Park)	W. Dunbar, Esq., C.E.	5	1 0	350	..	52·50	221	182
D Kilmarnock (Kay Park)	(R)W. Dunbar, Esq., C.E.	5	4 0	130	..	45·78	208	173
D Kilmarnock (Dean Castle)	J. Middleton, Esq.	5	1 0	190	40·7	48·22	221	177
D Kilmarnock (North Craig Res.)	W. Dunbar, Esq., C.E.	5	1 0	319	41·2	51·71	223	189
Fenwick (Hareshaw Lodge)	E. Richmond Paton, Esq.	5	0 3	600	48·5	57·68	200	186
D Fenwick (Amlaird Filters)	W. Dunbar, Esq., C.E	5	1 0	590	43·3	52·43	232	183
Fenwick (Pokelly Hill)*	W. Dunbar, Esq., C.E.	5	1 0	510	..	50·74	..	..
Craigendunton Reservoir	W. Dunbar, Esq., C.E.	5	1 0	805	46·4	54·59	..	..
Loch Goin Reservoir	W. Dunbar, Esq., C.E.	5	1 0	865	49·4	56·02	..	..
D Dalry (Munnoch Reservoir)	Gilbert Christie, Esq., C.E.	5	1 0	325	47·9	56·42	209	171
D Dalry (Caaf Reservoir)	Gilbert Christie, Esq., C.E.	5	1 3	515	53·2	58·35	211	173
D Dalry Birkheadsteel	Gilbert Christie, Esq., C.E.	5	1 0	520	..	60·98	211	180
D Dalry W.W. (Filters)	W. Wightman, Esq.	5	1 0	320	46·5	55·32	217	182
Dalry W.W. (Thirdpart)	W. Wightman, Esq.	5	1 0	560	52·0	57·43	..	..
M Dalry (Camphill Reservoir)	James Lee, Esq., C.E.	11	0 6	611	..	72·75	..	..
D Beith (Filter Station)	W. C. Dale, Esq.	5	1 0	415	..	53·61?	212	186
4.—AYR. 222 sq. mi.								
D Ayr Cemetery	J. Young, Esq., C.E.	5	1 0	40	34·8	40·65	183	164
D Muirkirk (Kaimshill)	Dugald Baird, Esq.	5	2 0	750	43·4	54·63	223	178
5.—DOON. 119 sq. mi.								
W Loch Finlas	J. Young, Esq., C.E.	5	1 0	849	55·1	58·29	..	..
D Dalmellington (Mossdale W.W.)	A. S. Glass, Esq.	5	1 0	764	..	45·33	225	180
D Patna (Kerse Filters)	W. Gray, Esq., C.E.	11	1 0	743	44·4	49·49	226	166
D Maybole (Otterden)	Robert Cross, Esq.	5	1 3	314	..	46·10	192	166
D Ayr (Doonholm)	Col. N. Kennedy, D.S.O.	5	1 0	90	38·8	44·76	195	166
6.—CULZEAN BAY & C. 32 sq. mi.								
Turnberry Lighthouse	Com'rs. of N. Lighthouses	5	2 6	40	32·5	38·15	167	160
D Maybole (Culzean Castle Gdns)	Mr. W. J. Orr	8	1 3	138	36·4	44·52	189	161
7.—GIRVAN. 105 sq. mi.								
Girvan (Glendoune Gardens)	Mr. J. Simons	5	1 0	100	41·8	47·82	174	..
Loch Bradan	M. S. Brodie, Esq., C.E.	11	1 0	991	57·6	63·94	..	..
8.—STINCHAR & C. 155 sq. mi.								
D Colmonell (Knockdolian)	Capt. McConnell	5	1 0	170	44·8	49·20	196	170
D Girvan (Pinmore)	Major E. C. Maxwell	5	0 5	207	49·8	50·60	221	165
D Pinwherry (Alticane)	D. I. W. Gray, Esq.	5	1 0	200	51·4	55·25	208	177
D Barr (Alton Albany)	Lt.-Cdr. G. Hughes-Onslow, D.S.C.	5	1 6	330	..	50·69	217	167
9.—LOCH RYAN. 12 sq. mi.								
10.—LUCE BAY. 15 sq. mi.								
D Ballantrae (Lagafater Lodge)	Cedric R. Boult, Esq.	5	0 11	792	64·8	71·84	199	187

* Formerly called Fenwick, Burnfoot Res.

DIVISION XIV.—SOUTH-WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
AYR—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
11.—CREE. 40 sq. mi.								
12.—DEE. 9 sq. mi.								
13.—NITH. 62 sq. mi.								
D Glen Afton (Ayr Sanator'm)	Dr. E. E. Prest	5	1 0	850	53·2	58·58	208	178
D New Cumnock (PowerStation)	New Cumnock Collieries, Ltd.	5	1 0	764	55·8	76·07?	189	173
14.—INSULAR. 1 sq. mi.								
Ailsa Craig	Com'rs. of N. Lighthouses	5	1 0	35	27·0	33·10	164	150
RENFREW. (Area, 241 sq. mi.)								
1.—CLYDE—Right Bank Tributaries. 3 sq. mi.								
2.—CLYDE—Left Bank Tributaries. 194 sq. mi.								
Gorbals Dist. W.W. (Nether Cairn)	G. Henshilwood, Esq., C.E.	12	0 5	700	57·2	55·40	..	
Gorbals Dist. W.W. (Middleton)	G. Henshilwood, Esq., C.E.	12	0 5	550	55·8	53·80	..	..
Gorbals Dist. W.W. (Ryat Lynn)	G. Henshilwood, Esq., C.E.	8	0 5	310	49·0	52·40	..	..
Gorbals Dist. W.W. (Waulk Glen)	G. Henshilwood, Esq., C.E.	12	0 5	280	47·2	52·20	..	..
Paisley W.W. (Muirhead)	James Lee, Esq., C.E.	12	1 0	482	..	65·79	..	..
Paisley W.W. (Springside)	James Lee, Esq., C.E.	12	1 0	532	..	72·04	..	..
Paisley WW (Back Thornleymuir)	James Lee, Esq., C.E.	12	1 0	646	50·9	60·22	..	..
Paisley W.W. (Stanely)	James Lee, Esq., C.E.	12	1 0	190	..	46·02	..	..
D Howwood (Midtown House)	Andrew McNab, Esq.	5	1 6	231	..	64·50	198	183
Pollokshaws (Rouken Glen)	W. Besant, Esq.	5	0 6	156	..	47·33	209	167
Glasgow (The Linn Park)	W. Besant, Esq.	5	1 0	180	..	37·05	176	155
D Pollokshaws (Pollok House)	Sir J. Stirling Maxwell, Bt.	5	1 0	50	..	40·94	195	157
D Glasgow (Queen's Park)	W. Besant, Esq.	8	0 9	145	36·1	40·23	222	170
Glasgow (Maxwell Park)	W. Besant, Esq.	5	0 6	69	..	37·79	192	156
D Kilbarchan (Milliken Park)	M. Douglas Anderson, Esq.	5	1 6	75	..	55·72	197	183
D Kilbarchan (Glentyan) .. (R)	R. H. Hunter, Esq.	8	3 9	285	..	56·98	217	176
D Paisley (The Coats Observatory)	Observatory Committee ..	8	1 0	106	40·7	45·79	208	163
D Houston Manse	Rev. George Muir	5	1 0	103	..	53·81	213	170
M Shaws W.W. (Duchall Moor)	J. MacAlister, Esq., C.E.	6	1 0	1150	70·7	77·80	..	..
M Shaws W.W. (Creuch Hill)	J. MacAlister, Esq., C.E.	6	1 0	1350	62·9	79·90	..	..
M Shaws W.W. (Green Water)	J. MacAlister, Esq., C.E.	6	1 0	788	68·1	77·70	..	..
D Renfrew Aerodrome .... (+A)	The Meteorological Office..	8	1 0	36	36·4	41·05	198	153
D Kilmacolm W.W.	James Grier, Esq.	5	1 0	600	..	74·39	216	186
D Kilmacolm Village	James Grier, Esq.	5	1 0	300	..	60·31	214	178
Bishopton (Ingliston)	D. Cross, Esq.	5	1 0	195	..	48·96	..	..
Bishopton (Dargavel)	Miss M. A. Maxwell, M.B.E.	5	1 0	33	..	48·88	..	..
D Shaws W.W. (Gryfe Reservoir)	J. MacAlister, Esq., C.E.	5	1 0	640	65·1	67·86	218	177
D Shaws W.W. (Mansfield)	J. MacAlister, Esq., C.E.	5	1 0	573	64·5	65·98	217	180
M Shaws W.W. (Darndaff Moor)	J. MacAlister, Esq., C.E.	5	1 0	850	65·7	73·30	..	..
3.—FIRTH OF CLYDE. 34 sq. mi.								
W Shaws W.W. (Kelly Dam)	J. MacAlister, Esq., C.E.	5	1 0	640	63·6	95·80	..	..
Inverkip (Daff Burn Reservoir)	Alex Duthie, Esq.	8	1 0	506	..	64·02	..	..
M Langbank (East Bank Gardens)	T. Cross, Esq.	5	2 0	250	..	49·92	..	..
W Douglie hill Filters (Pt. Glas. W.W.)	James Murray, Esq.	8	1 6	540	..	58·37	..	..
W Parkhill Filters (Pt. Glas. W.W.)	James Murray, Esq.	8	1 6	275	..	53·09	..	..
D Shaws W.W. (Compens. Res.)	J. MacAlister, Esq., C.E.	5	1 0	600	64·4	71·61	241	193
D Shaws W.W. (Loch Thom)	J. MacAlister, Esq., C.E.	5	1 0	643	65·4	73·27	241	199
W Shaws W.W. (Shielhill)	J. MacAlister, Esq., C.E.	6	1 0	962	65·7	74·10	..	..
D Shaws W.W. (New Yett's Dam)	J. MacAlister, Esq., C.E.	5	1 0	800	65·0	70·64	255	193
W Shaws W.W. (Spango Burn)	J. MacAlister, Esq., C.E.	6	1 0	757	65·1	70·50	..	..
D Shaws W.W. (Hole Glen)	J. MacAlister, Esq., C.E.	5	1 0	603	62·2	80·19	252	194
D Greenock (Prospect Hill) .(+A)	J. MacAlister, Esq., C.E.	5	1 0	199	61·6	67·64	226	187
D Gourock (Coves Reservoir)	Alex. Duthie, Esq.	5	1 0	221	..	64·22	212	187
4.—IRVINE. 10 sq. mi.								

DIVISION XV.—WEST MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with .01 in. or more.	Days with .04 in. or more.
DUMBARTON. (Area, 270 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—FORTH—Right Bank Tributaries. 10 sq. mi.								
2.—FIRTH OF CLYDE & COWAL. 52 sq. mi.								
D Cardross (Kilmahew)	Claud A. Allan, Esq.	5	1 0	130	44·7	48·29	208	172
D Helensburgh (Ferniegair)	J. N. Stirling, Esq., C.E.	8	1 0	21	49·7	57·05	218	176
D Helensburgh (Valve House)	J. N. Stirling, Esq., C.E.	8	1 0	293	52·7	62·94	226	185
D Rosneath Castle Gardens	Mr. J. M. Urquhart	5	0 4	33	50·7	59·81	221	180
Garlochhead (Aikenshaw)	W. S. Turnbull, Esq.	6	1 0	32	58·8	56·90	..	..
D Arrochar (Glen Loin)	Mrs. Little	5	1 0	17	86·4	97·08	233	209
D Arrochar (Braeside)	J. Lindsay, Esq.	5	1 0	40	74·6	88·80	241	199
3.—CLYDE—Leven. 149 sq. mi.								
D Renton (Carman Filters)	J. W. Rankine, Esq.	8	4 0	292	47·6	51·54	176	163
Loch Lomond Park	W. Besant, Esq.	5	1 0	156	49·5	51·90	..	..
M Glen Finlas Reservoir	No. 1. George Beaton, Esq.	5	1 1	782	69·1	82·58	..	..
M Glen Finlas Reservoir	No. 2. George Beaton, Esq.	5	1 6	1194	67·0	80·35	..	..
M Glen Finlas Reservoir	No. 3. George Beaton, Esq.	5	1 5	1627	75·2	85·17	..	..
M Glen Finlas Reservoir	No. 4. George Beaton, Esq.	5	2 0	2040	73·6	84·64	..	..
M Glen Finlas Reservoir	No. 5. George Beaton, Esq.	5	0 9	1635	64·6	72·85	..	..
M Glen Finlas Reservoir	No. 6. George Beaton, Esq.	5	1 0	1172	62·8	73·84	..	..
D Glen Finlas Reservoir	No. 7. George Beaton, Esq.	12	1 6	810	81·4	99·13	230	204
4.—CLYDE—Right Bank Tributaries. 59 sq. mi.								
D Drumchapel (Wasdale)	F. C. Thomson, Esq.	5	1 0	49	38·5	43·21	224	162
W Bearsden (Glengarnock)	A. Lithgow, Esq.	8	1 0	132	40·4	45·21	..	..
D Milngavie (Dougalston)	Mr. J. Hamilton	5	1 0	150	43·7	43·80	205	170
D Duntocher (Cochno Filters)	E. T. Collins, Esq., C.E.	5	1 0	400	43·7	47·72	189	163
Kilpatrick Hills (Greenside Res.)	E. T. Collins, Esq., C.E.	5	1 0	876	50·8	59·67	..	..
Kilpatrick Hills (Loch Cochno)	E. T. Collins, Esq., C.E.	5	1 0	909	52·4	57·76	..	..
Kilpatrick Hills (Jaw Reservoir)	E. T. Collins, Esq., C.E.	5	1 0	912	52·7	59·92	..	..
STIRLING. (Area, 463 sq. mi.)								
1.—FORTH—Right Bank Tributaries. 263 sq. mi.								
D Polmont (Vellore)	R. M. W. Brown, Esq.	8	1 0	320	36·3	32·98	166	135
D Falkirk (Inglewood, Laurieston)	Mrs. W. Ballantine	5	1 3	133	36·6	34·95	162	140
D Falkirk (Westbank)	*Garden*. A. Nimmo, Esq.	5	1 0	75	37·6	36·65	182	149
M Falkirk (Westbank)	*Lawn*. A. Nimmo, Esq.	5	1 0	105	36·5	35·53	..	..
d Falkirk (Arnotdale)	W. Gibson, Esq.	5	1 0	107	37·4	35·16	..	..
Falkirk (Kerse)	George Smith, Esq.	5	1 0	18	31·9	32·75	..	..
d Grangemouth (Burgh Stables)	J. C. Wallace, Esq., C.E.	5	1 0	15	31·8	31·71	..	..
M Little Denny Reservoir	C. Massie, Esq., C.E.	8	1 0	326	43·1	43·88	..	..
M Little Denny Filters	C. Massie, Esq., C.E.	8	1 0	243	42·2	45·37	..	..
M Kilsyth (Faughlin Res.)	C. Massie, Esq., C.E.	8	1 0	707	55·2	59·15	..	..
Denny (Buckieburn Reservoir)	C. Massie, Esq., C.E.	8	1 0	825	45·9	36·65	..	..
Denny (Buckieburn Filters)	C. Massie, Esq., C.E.	8	1 0	760	43·3	34·53	..	..
M Earlsburn Reservoir	C. Massie, Esq., C.E.	8	1 0	1202	58·0	66·42	..	..
D Stirling (North Third Res.)	J. C. Wallace, Esq., C.E.	8	1 0	560	44·8	56·31	214	169
D Stirling (Touch Res.)	No. 3. A. H. Goudie, Esq.	8	1 0	759	47·7	47·12	215	165
D Stirling (Touch Res.)	No. 2. A. H. Goudie, Esq.	8	1 0	707	47·1	46·76	215	164
D Stirling (Touch Res.)	No. 1. A. H. Goudie, Esq.	8	1 0	455	47·6	48·84	215	164
D Stirling (Sauchie House)	J. Fyfe, Esq., C.S.I.	5	1 0	151	36·5	34·10	164	131
Stirling (Westerlands)	J. W. Drummond, Esq.	5	1 0	120	36·9	35·16	..	..
D Stirling (Craigforth)	A. J. Couper, Esq.	5	1 0	32	39·1	36·91	230	141
D Gargunnock House	C. Stirling, Esq.	5	1 0	85	43·4	45·25	195	150
D Kippen (Arngomery)	Mr. P. McCowan	5	4 6	150	47·5	46·35	161	150
W Duchray Valley (Ben Lomond)	G. Henshilwood, Esq., C.E.	8	0 6	1500	88·0	94·85	..	..
W Duchray Valley (Glen Dhu)	G. Henshilwood, Esq., C.E.	8	1 0	500	83·8	86·55	..	..
W Duchray Valley (Comer)	G. Henshilwood, Esq., C.E.	8	1 0	600	88·0	92·75	..	..
W Duchray Valley (Achaidh Burn)	G. Henshilwood, Esq., C.E.	8	1 0	1200	97·4	99·45	..	..
W Duchray Val. (Hd. of Main Stream)	G. Henshilwood, Esq., C.E.	8	1 0	950	92·8	93·10	..	..

DIVISION XV.—WEST MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
STIRLING—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—FORTH—Teith. 5 sq. mi.								
d Stronachlachar (Invergyle)	G. Henshilwood, Esq., C.E.	8	1 0	376	82·4	89·85	..	..
3.—FORTH—Left Bank Tributaries. 15 sq. mi.								
D Bridge of Allan (The Lea)	Mr. W. Watt	5	0 8	50	35·9	32·78	210	150
d Bridge of Allan (Langlands)	W. H. Gillespie, Esq.	8	4 0	45	..	33·24	..	..
d Bridge of Allan (Lynwood)	J. Wallace Walker, Esq.	5	1 0	250	..	33·57	..	..
4.—CLYDE—Leven. 128 sq. mi.								
Strathblane (Blanefield)	G. Henshilwood, Esq., C.E.	8	1 0	250	50·5	53·95	..	..
d Killearn (Achnagowan)	Miss A. L. Guthrie-Smith	5	1 0	332	56·1	63·79	..	167
w Loch Arklet (Corriehichon)	G. Henshilwood, Esq., C.E.	8	0 6	870	89·3	90·90	..	..
w Loch Arklet (Corriearklet)	G. Henshilwood, Esq., C.E.	8	0 6	950	90·2	92·60	..	..
5.—CLYDE—Right Bank Tributaries. 52 sq. mi.								
Strathblane (Mugdock Res.)	G. Henshilwood, Esq., C.E.	8	0 6	320	46·2	53·75	..	..
Milngavie (Eastertoun)	Major R. M. Ker	5	1 0	474	45·0	52·80	200	175
Kilpatrick H. (Burncrooks Res.)	E. T. Collins, Esq.	5	1 0	835	49·5	56·56	..	..
D Kilsyth (Innsbridge)	J. I. Little, Esq.	5	4 6	197	47·3	52·96	229	171
BUTE. (Area, 218 sq. mi.)								
1.—ISLE OF BUTE. 50 sq. mi.								
D Rothesay (Ardencraig)	Sir John Reid	5	1 0	200	49·0	57·62	246	203
D Port Bannatyne (Ettrickdale)	Lt.-Col. M.R.Gray Buchanan	5	1 0	160	..	55·97	215	194
2.—CUMBRAES. 4 sq. mi.								
D Millport (Marine Biog. Stat.)	R. Elmhirst, Esq.	5	1 0	16	..	48·49	203	161
3.—ARRAN. 164 sq. mi.								
Pladda	Com'rs. of N. Lighthouses.	5	1 6	53	45·0	26·90?	..	..
Holy Island (Pillar Rock)	Com'rs. of N. Lighthouses.	5	0 11	68	48·6	35·22	..	..
D Dougarie Lodge	David Reside, Esq.	5	1 0	10	46·0	55·38	217	170
D Corrie Manse	Rev. James Brown	5	1 0	20	..	77·36	210	179
ARGYLL. (Area, 3181 sq. mi.)								
1.—TAY Tummel. 36 sq. mi.								
2.—SOUND OF ARISAIG, SOUND OF MULL & C. 317 sq. mi.								
D Morvern (Ardtornish)	Late G. Craig Sellar, Esq.	5	1 0	48	83·3	78·99	241	206
Ardnamurchan Lighthouse	Com'rs. of N. Lighthouses.	5	0 9	79	43·4	35·98?	200	158
D Morvern (Drimnin)	Mrs. Gordon	5	1 0	225	62·7	62·92	218	192
D Loch Sunart (Glenborrodale)	A. M. Fletcher, Esq.	5	1 0	..	69·0	68·79	240	217
D Acharacle (Shielbridge)	A. M. Fletcher, Esq.	8	4 0	48	68·2	64·70	227	208
d Loch Shiel (Polloch House)	Forestry Commission	5	0 9	30	83·5	93·00	..	179
3.—LOCH LINNHE—Right Bank Tributaries. 139 sq. mi.								
D Morvern (Kingairloch)	Mrs. G. H. Strutt	5	1 0	40	98·2	102·49	205	195
Corran Lighthouse	Com'rs. of N. Lighthouses.	5	1 0	13	81·0	88·60	219	209
D Ardgour House	Maclean of Ardgour	5	0 10	60	90·4	101·73	253	232
4.—LOCH LINNHE.—Left Bank Tributaries. 165 sq. mi.								
D Duror (Achara)	W. D. Stewart, Esq.	5	1 2	45	72·4	77·81	225	200
D Barcaldine	S. H. R. Paterson, Esq.	5	1 0	50	72·0	74·14	217	190
D Barcaldine Gardens	Sir Charles Stewart, K.B.E.	5	1 0	50	..	80·43	261	218
D Glencoe Gardens	Mr. J. B. Crichton	8	1 0	85	..	73·80	209	191
Glenleven (Blackwater House) 4	British Aluminium Co. Ltd.	8	1 0	1069	83·8	87·21	..	..
D Glenleven (Blackwater Dam, S.) 2	British Aluminium Co. Ltd.	8	1 0	1072	87·7	95·18	255	224
D Glenleven (Kinlochleven) 1	British Aluminium Co. Ltd.	8	1 0	140	90·0	94·88	230	222

DIVISION XV.—WEST MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
ARGYLL—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
5.—LOCH ETIVE. 197 sq. mi.								
d Glen Etive	W. D. Fordyce, Esq.		1 0	200	94·0	100·41	..	194
6.—LOCH ETIVE—Loch Awe. 319 sq. mi.								
D Dalmally (Manse of Glenorchy)	Rev. Farquhar MacRae	5	1 0	150	76·0	82·16	215	195
D Bridge of Orchy (Inveroran)	G. Wishart, Esq., C.E.	5	1 0	580	83·5	78·70	193	179
7.—FIRTH OF LORNE. 112 sq. mi.								
D Kilmelfort (Arduaine)	Late J. A. Campbell, Esq.	5	0 10	23	57·6	72·99	204	197
w Oban (Gleann-a-Bhearraidh Res.)	D. Galloway, Esq.	8	1 6	370	57·5	67·74	..	..
D Oban	D. Galloway, Esq.	8	1 0	21	53·0	60·04	220	179
8.—SOUND OF JURA. 163 sq. mi.								
D Lochgilphead (Poltalloch)	Mr. D. S. Melville	5	1 6	135	52·7	61·33	219	189
9.—KINTYRE, WEST. 146 sq. mi.								
Mull of Kintyre	Com'rs. of N. Lighthouses.	5	1 0	270	41·8	42·03	..	..
D Muasdale (Grianan)	Rev. D. J. Macdonald	5	1 0	10	42·7	53·50	213	177
D Largie Castle	Mrs. Moreton Macdonald	5	1 1	160	48·4	49·83	209	177
10—KINTYRE, EAST. 177 sq. mi.								
D Campbeltown (South Park)	J. A. Gardiner, Esq.	8	0 10	20	50·6	56·66	236	174
Campbeltown (Devaar)	Com'rs. of N. Lighthouses.	5	1 9	76	45·1	46·84	..	..
D Carradale (Torrisdale Castle)	Major W. Macalister Hall.	5	1 0	84	62·6	71·62	226	186
d Skipness (Claonaig)	R. F. Graham, Esq.	5	1 1	160	..	55·73	..	..
11.—LOCH FYNE. 264 sq. mi.								
D Ardlamont (Kilbride)	J. W. Turnbull, Esq.	5	1 0	110	49·0	56·46	183	166
Otter Ferry (Balllmore)	Lt.-Col. MacRae-Gilstrap	5	0 10	70	52·1	57·25	..	..
D Ardrishaig (Canal Office)	E. A. Bly, Esq., C.E.	5	1 0	48	67·9	71·22	224	194
D Loch Fyne (Castle Lachlan)	The Maclachl'n of Machlachl'n	5	1 0	25	65·3	78·05	228	209
D Crarae Lodge	Capt. G. I. Campbell	5	1 0	20	68·2	78·17	228	202
D Strachur Park	Lady G. Campbell	5	1 0	25	66·7	79·79	220	203
d Inveraray Castle Gardens	A. R. Page, Esq.	5	1 0	40	77·2	87·59	(201)	(192)
D Ardkinglas	Mr. J. Payne	8	1 6	37	70·8	81·72	224	202
12.—FIRTH OF CLYDE & COWAL. 242 sq. mi.								
D Toward (Knockdow Gardens)	Sir Norman Lamont, Bt.	5	1 6	101	59·7	66·93	224	191
D Tighnabruaich (Wellpark)	R. Paton, Esq.	12	5 2	50	57·2	57·43	208	181
D Toward (Inverchaolain)	Sir Norman Lamont, Bt.	5	1 0	..	67·9	70·77	232	205
d Dunoon (Reservoir)	W. Rodger, Esq., C.E.	12	3 6	245	79·3	76·66	192	186
D Dunoon (Redhurst)	Dr. J. Banks	5	1 0	60	76·8	85·75	211	192
D Ardnadan (Hafton Ho.)	R. Allan, Esq.	5	1 0	73	76·5	80·05	222	196
D Loch Eck (Benmore)	H. G. Younger, Esq.	5	1 3	40	86·6	98·43	244	212
D Glenbranter	Forestry Commission	5	1 0	188	88·2	95·75	231	212
Lochgoilhead (Ardgoil)	W. Besant, Esq.	5	0 6	20	86·3	93·02	225	200
d Lochgoilhead (Nuthill)	Mrs. Henderson	5	1 0	15	84·7	80·51	..	..
D Glencroe (Guithas Cottage)	D. Spraggan, Esq.	5	1 2	120	101·0	105·48	229	216
13.—CLYDE—Leven. 4 sq. mi.								

DIVISION XV.—WEST MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
ARGYLL—(*con.*)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
14.—INSULAR. 900 sq. m.								
D Islay (Ardbeg)	A. H. MacDougall, Esq....	5	7 0	46	45·1	53·65	220	181
Sanda Lighthouse	Com'rs. of N. Lighthouses.	5	2 9	134	36·8	38·28	..	..
Islay (Rhinns)	Com'rs. of N. Lighthouses.	7	3 6	74	..	48·95	..	..
Islay (Lochindaul)	Com'rs. of N. Lighthouses.	5	0 7	45	44·0	51·61	..	..
Islay (McArthur's Head)	Com'rs. of N. Lighthouses.	5	0 6	173	58·4	71·73	220	193
D Islay (Eallabus)	James MacKillop, Esq. ...	5	1 0	68	48·9	61·55	239	198
d Islay (Dunlossit)	N. Dunlop, Esq.	5	1 0	100	55·0	49·69	..	..
d Islay (Cluanach	N. Dunlop, Esq.	5	0 11	150	45·4	52·31	..	..
Islay (Rhuvaal)	Com'rs. of N. Lighthouses.	5	1 0	69	42·0	47·35	230	185
D Jura (Ardfin)	Colin Campbell, Esq.	5	1 0	160	53·8	60·24	221	193
Lismore (Mousedale)	Com'rs. of N. Lighthouses.	7	3 10	38	43·7	47·06	198	174
D Eriska	Mr. J. M. Webster	5	1 0	40	59·6	80·53	..	..
D Mull (Bunessan)	Duncan Cameron, Esq. ...	5	1 3	50	51·5	60·54	226	199
D Mull (Kinlochspelvie)	G. W. Duncan, Esq.	8	0 10	100	93·2	99·60	217	208
Mull (Benmore)	The Meteorological Office..	5	2 0	2800	135·8	(131·00)	..	
d Mull (Glencannel)	Duncan Cameron, Esq. ...	5	1 3	140	116·9	119·95	(247)	(217)
D Mull (Ulva)	F. W. Clark, Esq.	5	1 0	30	64·8	68·07	249	202
D Mull (Knock)	John Cameron, Esq.	5	1 3	50	89·6	85·61	204	197
D Mull (Gruline)	J. W. Melles, Esq.....	8	1 0	100	79·0	78·18	262	211
Mull, Sound of	Com'rs. of N. Lighthouses.	..	..	..	61·5	64·87	240	207
Fladda Lighthouse	Com'rs. of N. Lighthouses.	5	1 6	25	58·2	57·10	209	187
D Tiree (Hynish House)	M. Maclean, Esq.	5..	1 2	65	..	41·38	258	178
D Tiree (Cornaigmore School)	Meteorological Office	5	1 0	22	44·7	47·26	241	181

DIVISION XVI.—EAST MIDLAND COUNTIES.

CLACKMANNAN. (Area 55 sq. mi.)

1.—FORTH, LOWER—Left Bank Tributaries. 55 sq. mi.

Alloa House Gardens	Earl of Mar & Kellie, K.T.	5	3 0	40	34·3	34·22	..	..
W Alloa W. W. (Gartmorn Res.)	Robert Cairns, Esq., C.E. .	11	1 0	172	33·2	35·03	..	..
D Dollar (Dollarbeg)	James Bleloch, Esq.	5	0 9	300	38·6	37·06	220	143
D Tillicoultry (Westbourne)	Mrs. Willison.....	5	1 0	66	37·0	35·24	195	143
M Glendevon (Broich Burn) No. 2	H. F. Hodge, Esq., C.E...	8	1 0	1333	76·5	71·08	..	..
M Glendevon (Burnfoot Hill) No. 8	H. F. Hodge, Esq., C.E...	8	1 0	1721	49·2	46·83	..	..
M Glendevon (Backhill).... No. 9	H. F. Hodge, Esq., C.E...	8	1 0	1067	58·7	57·68	..	..
D Glendevon (Backhill)	H. F. Hodge, Esq., C.E. ..	8	1 0	1067	60·5	59·56	225	183

KINROSS. (Area, 87 sq. mi.)

1.—FORTH, LOWER—Left Bank Tributaries. 15 sq. mi.

D Dollar (Blairingone Manse)	Rev. J. F. Cameron	5	1 6	296	39·8	38·60	206	152

2.—LEVEN & C. 67 sq. mi.

D Loch Leven Sluice	Mr. J. Thomson.....	8	0 9	360	35·8	31·65	167	131
D Milnathort (Laurel Bank)	Capt. L. Kininmonth	5	1 0	398	36·0	32·73	174	139
D Milnathort (Ledlanet)	Sir James C. Calder, K.B.E.	5	1 0	700	44·4	42·22	181	156
D Milnathort (Ochil Hills San.)	Dr. R. H. Williamson.....	5	1 0	800	..	42·16	204	159

3.—EDEN. 2 sq. mi.

4.—TAY—Earn. 3 sq. mi.

FIFE. (Area, 505 sq. mi.)

1.—FORTH, LOWER—Left Bank Tributaries. 68 sq. mi.

D Rosyth (H. M. Dockyard)	The Supt. Civil Engineer..	8	1 0	53	25·7	24·23	144	106
d Kincardine (Tulliallan)	Col. Alexander Mitchell...	8	1 0	80	33·8	33·20	(134)	(126)
Carnock (Craigluscar Res.)	D.H.Shaw, Esq., M.C., C.E.	12	0 4	480	36·1	33·75	..	..

DIVISION XVI.—EAST MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
FIFE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—LEVEN & C. 208 sq. mi.								
Inverkeithing (Pitreavie Castle)	R. Richardson, Esq.	5	0 9	150	31·4	26·36	..	..
d Dunfermline (Fordell House)	Earl of Buckinghamshire	5	1 0	250	33·2	29·05	..	..
D Burntisland (Cullaloe Res.)	J. A. Waddell, Esq.	5	2 0	300	..	28·03	149	124
D Kirkcaldy (Munro Street)	F. Braid, Esq.	5	1 0	66	31·3	25·44	178	117
Cowdenbeath (Stenhouse St.)	C. A. Alexander, Esq.	5	1 0	516	40·7	30·69	..	..
M Cleish Hills (Craiggaveral)	C. A. Alexander, Esq.	5	1 0	760	42·7	34·60	..	..
M Cleish Hills (Roscobie Res.)	C. A. Alexander, Esq.	5	1 0	660	..	33·75	..	..
M Cleish Hills (Blairadam Wood)	C. A. Alexander, Esq.	5	1 0	670	38·2	29·80	..	..
M Cleish Hills (Lochglow Res.)	C. A. Alexander, Esq.	5	1 0	900	41·4	28·25?	..	..
D Leslie (Lothrie Reservoir)	R. Ritchie, Esq.	5	1 0	700	37·5	33·69	170	141
D Elie (The Castle)	Miss E. E. Scott Moncrieff.	5	0 8	9	26·3	20·84	176	112
D Colinsburgh (Cairnie House)	Maj.R.A.Anstruther,D.S.O.	5	3 6	125	30·8	24·96	182	122
D Colinsburgh (Balcarres)	Mr. W. H. Adams	5	1 0	300	32·2	24·64	170	120
D Carnbee (Ovenstone W.W.)	C. Birrell, Esq.	5	1 0	168	26·6	23·01	160	109
3.—EDEN & C. 205 sq. mi.								
D Ceres (Castlebank)	Mr. Alex. Smith	5	1 0	280	28·9	31·11	180	134
D Cameron Waterworks	W. Watson, Esq., C.E.	5	1 0	478	29·9	28·97	137	117
D Cupar (Pitlair)	Mr. P. Webster	5	1 0	126	29·5	29·53	160	125
d Cupar (Rankeillour)	Mr. R. Tunstall	5	1 0	240	28·7	28·76	164	124
D Cupar (Fife & Kinross Asylum)	Medical Superintendent	5	1 0	210	27·7	27·31	171	136
D Kingsbarns	Miss M. R. Nimmo	5	1 0	75	..	23·77	153	110
D Cupar (Over Rankeillour)	H. Giles Walker, Esq.	5	1 0	200	28·7	26·57	146	118
D St. Andrews (Waterworks)	W. Watson, Esq., C.E.	5	1 0	217	27·3	25·14	150	119
D St. Andrews	W. Watson, Esq., C.E.	5	1 0	20	27·1	26·50	166	124
Kilmany (Lochmalony)	Miss J. Marshall	5	0 9	260	29·7	22·66	..	..
D Leuchars (Training Base) (+A)	The Meteorological Office	8	1 0	40	25·7	23·97	159	112
4.—FIRTH OF TAY. 25 sq. mi.								
D Newport (Tayfield)	W. Berry, Esq.	5	0 7	100	28·3	27·40	171	129
D Newport Manse	Rev. John A. Lees	5	1 0	150	27·1	23·94	159	111
D Newport (Seabank)	J. Grant Bruce, Esq.	5	4 6	15	27·5	24·62	158	116
D Tayport (Lighthouse)	J. H. Thompson, Esq., C.E.	5	1 0	27	26·3	25·45	176	117
5.—TAY—Earn. 1 sq. mi.								
6.—INSULAR.								
D Inchkeith	The Meteorological Office	8	1 0	190	26·3	19·88	159	105
Inchkeith Lighthouse	Com'rs. of N. Lighthouses	5	1 0	190	23·5	18·54	146	99
Isle of May	Com'rs. of N. Lighthouses	5	4 0	180	20·1	17·65	..	..
PERTH. (Area, 2535 sq. mi.)								
1.—FORTH—Right Bank Tributaries. 17 sq. mi.								
D Gartmore House Gardens	Mr. H. B. Matheson	5	1 0	160	56·0	56·95	228	175
d Loch Dhu	G. Henshilwood, Esq., C.E.	8	0 6	325	79·8	77·60	..	192
2.—FORTH, UPPER—Left Bank Tributaries. 84 sq. mi.								
w Ledard	G. Henshilwood, Esq., C.E.	8	0 6	1500	61·2	65·86	..	..

DIVISION XVI.—EAST MIDLAND COUNTIES—(*con*.)

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
PERTH—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
3.—FORTH—Teith. 221 sq. mi.								
w Loch Drunkie	G. Henshilwood, Esq., C.E.	8	0 6	420	62·1	60·40	..	..
D Invertrossachs	Sir James R. Wilson, Bt...	5	1 0	380	58·7	61·22	234	181
w Ben Venue (Glasahoile)	G. Henshilwood, Esq., C.E.	8	1 0	1150	80·4	77·75	..	..
d Loch Vennachar	G. Henshilwood, Esq., C.E.	8	0 6	275	55·3	57·70	..	174
d Bridge of Turk	G. Henshilwood, Esq., C.E.	8	0 6	275	63·5	65·25	..	182
Loch Katrine (Tunnel Hill Top)	G. Henshilwood, Esq., C.E.	8	0 6	830	81·4	82·80	..	..
Ben Ledi	G. Henshilwood, Esq., C.E.	8	0 6	1400	66·6	69·40	..	..
d Achnahard	G. Henshilwood, Esq., C.E.	8	1 0	474	65·5	66·90	..	180
Callander (Leny House)	Capt. M. Murray Buchanan	5	1 0	340	56·3	52·80	..	..
w Strone Bridge	G. Henshilwood, Esq., C.E.	8	1 0	380	72·4	72·70	..	..
w Glen Meann	G. Henshilwood, Esq., C.E.	8	1 0	800	77·2	79·80	..	..
w Glen Finglas	G. Henshilwood, Esq., C.E.	8	1 0	1200	79·0	79·20	..	..
d Glengyle	G. Henshilwood, Esq., C.E.	8	0 6	380	89·9	90·60	..	214
w Upper Glengyle	G. Henshilwood, Esq., C.E.	8	1 0	750	95·6	96·60	..	..
w Allt a' Choin	G. Henshilwood, Esq., C.E.	8	1 0	1250	79·6	88·55	..	..
w Balquhidder (Blaircreach)	J. M. Fergusson, Esq.	5	1 0	460	94·7	95·21	..	..
d Balquhidder (Stronvar)	J. Gault, Esq.	5	1 0	422	74·2	61·25?	..	..
4.—FORTH, LOWER—Left Bank Tributaries. 107 sq. mi.								
D Dunblane	W. L. Gibson, Esq., C.E...	5	1 0	250	37·3	35·50	191	160
D Glendevon (Glenquey Res.) No. 2	H. F. Hodge, Esq., C.E. ..	8	1 0	945	54·7	57·04	176	166
D Glendevon (Tormaukin)	W. Phillips, Esq.	5	1 6	770	53·6	48·01	188	146
D Glendevon (Frandy)	H. F. Hodge, Esq., C.E. ..	8	1 0	911	60·4	59·01	210	170
Glendevon (Glensherup)	D. H. Shaw, Esq., M.C., C.E.	12	0 4	945	59·8	56·47	..	..
M Glendevon (Bald Hill) ..No. 1	H. F. Hodge, Esq., C.E...	8	1 0	1202	56·5	53·76	..	..
M Glendevon (Wether Hill) No. 10	H. F. Hodge, Esq., C.E...	8	1 0	1408	48·8	46·52	..	..
5.—LEVEN. 1 sq. mi.								
6.—EDEN. 4 sq. mi.								
7.—TAY—Earn. 376 sq. mi.								
d Gleneagles House	Mr. P. Douglas	8	1 0	447	45·3	45·22	..	..
Upper Farg (Plains)	Messrs. Leslie & Reid, C.E.	8	1 0	900	35·9	33·21	..	..
Upper Farg (Main Bank)	Messrs. Leslie & Reid, C.E.	5	1 0	642	31·3	29·19	..	..
D Dunning (Kippen House)	Lady Wilson	5	1 0	450	43·1	39·64	160	124
D Abernethy (Glen-Farg House)	Norman I. Nasmyth, Esq..	5	0 9	120	..	31·96	166	133
D Bridge of Earn (Ballendrick)	Capt. O. A. Taylor	5	1 0	50	32·6	29·59	188	123
d Bridge of Earn (Kinmonth)	J. Moncrieff Wright, Esq. .	5	1 0	..	30·4	26·78	..	..
D Lochearnhead (Ardloch)	S. Moir, Esq.	5	1 0	370	64·3	57·73	231	177
D Lochearnhead (Edinchip)	Sir Malcolm MacGregor, Bt.	5	1 0	513	70·3	61·93	212	175
D Comrie (Dunira)	W. Gilchrist Macbeth, Esq.	10	1 6	240	52·0	48·75	208	155
D Crieff (Strathearn Hydro)	Dr. G. Meikle	5	1 0	478	40·9	39·25	197	147
8.—TAY—Almond & C. 149 sq. mi.								
D Perth (Wellshill Cemetery)	J. Ritchie, Esq.	5	1 0	77	30·8	25·58	176	125
w Logiealmond Lodge	Earl of Mansfield	8	1 3	1020	48·5	47·15	..	..
D Glen Almond (Auchnafree)	Major J. A. C. Whitaker ..	5	1 0	1025	62·0	62·07	181	152
9.—TAY—Strathtay below Dunkeld. 33 sq. mi.								
Murthly (Douglasfield)	W. A. Rae, Esq.	5	1 0	237	34·9	30·76	164	129
D Dunkeld (Birnam School)	Chas. A. Lunan, Esq.	5	1 3	160	..	35·98	180	130
D Dunkeld (Snaigow)	W. H. Cox, Esq.	5	1 0	370	35·0	30·25	166	127
D Dunkeld (Kincairney Lodge)	John Doig, Esq.	8	1 0	400	..	29·02	216	136

DIVISION XVI.—EAST MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in or more.
PERTH—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
10.—TAY—Bran. 81 sq. mi.								
D Strath Bran (Glenquaich Lodge)	W. H. Cox, Esq.	5	1 0	900	55·0	52·51	168	158
11.—TAY—Strathtay above Dunkeld. 95 sq. mi.								
D Aberfeldy (Bolfracks Cottage)	Mrs. Drummond-Fish	5	1 0	350	..	36·25	201	134
D Aberfeldy (Dall Avon)	Dr. N. D. Mackay	5	1 0	220	38·7	36·74	204	140
D Grandtully	W. L. Macnaughton, Esq.	5	1 0	320	36·1	33·35	194	136
12.—TAY—Loch Tay. 241 sq. mi.								
D Killin (Auchmore Gardens)	Mr. J. Easson	5	1 0	380	56·8	58·90	190	162
13.—TAY—Lyon. 142 sq. mi.								
D Glenlyon (Meggernie Castle)	Sir E. S. Wills, Bt.	5	1 0	700	61·0	58·98	203	174
w Fortingall (Glenlyon House)	Mr. J. W. Ford	5	1 0	425	45·5	43·77	..	..
14.—TAY—Tummel. 587 sq. mi.								
D Loch Rannoch (Dall)	Mr. D. Robertson, Jun.	5	1 0	722	43·4	44·47	200	164
D Pitlochry (Dunfallandy)	D. Stewart-Fergusson, Esq.	5	1 0	405	32·9	32·67	170	143
d Foss (The Manse)	Rev. W. Walker, M.A., B.D.	8	1 0	500	40·4	40·42	218	143
D Pitlochry (Bonskeid)	Dr. G. F. Barbour	5	1 0	540	33·3	30·09	178	139
D Fincastle House	Dr. G. F. Barbour	5	1 0	980	34·7	30·05	204	133
d Struan (Auchleeks)	Mr. A. Kennedy	5	1 0	..	41·0	(43·65)	..	..
D Blair Atholl (Blair Castle Grdns)	Mr. J. Dickson	5	1 0	500	33·1	32·91	215	145
D Glen Garry (Dalnaspidal Lodge)	Mr. J. Macbeth	5	1 0	1414	61·9	62·66	189	181
D Glen Bruar (Bruar Lodge) No. 1	Mr. A. McLauchlan	5	1 0	1600	45·2	48·69	223	185
D Glen Bruar (Bruar Lodge) No 2	Mr. A. McLauchlan	5	1 0	1600	..	51·36	223	186
15.—TAY—Isla. 282 sq. mi.								
D Blairgowrie (Kinloch Manse)	Rev. T. Milne	5	1 0	280	29·6	27·20	171	118
D Dunkeld (Cardney)	A. R. Macgregor, Esq.	5	1 0	350	36·7	33·16	166	139
D Kirkmichael (Ballintuim Ho.)	Miss M. A. Macdonald	5	1 4	700	37·8	39·17	202	139
16.—TAY—Left Bank Tributaries. 51 sq. mi.								
Pitfour Castle	Miss D. Cairns	..	..	..	29·0	27·51	..	123
D Kinfauns (Balthayock)	R. Wylie Hill, Esq.	5	4 6	323	32·0	26·74	174	127
D Perth (Ard Choille)*	Earl of Mansfield	5	0 11	90	31·8	28·31	166	130
17.—FIRTH OF TAY. 45 sq. mi.								
Errol (Annat Cottage)	W. Kimm, Esq.	5	5 0	200	27·5	24·84	..	..
18.—SPEY—Right Bank Tributaries. 1 sq. mi.								
19.—LOCH LINNHE.—Left Bank Tributaries. 2 sq. mi.								
20.—CLYDE—Leven. 36 sq. mi.								

* Continuation record for Scone Palace.

DIVISION XVI.—EAST MIDLAND COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
ANGUS (FORFAR). (Area, 875 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—TAY—Isla. 211 sq. mi.								
D Kettins School	J. W. Sherriffs, Esq.	5	1 0	218	32·0	30·05	180	122
d Glamis Castle	Mr. D. McInnes	5	0 9	250	30·9	27·44	..	..
D Kirriemuir (Lintrathen)	G. Baxter, Esq., C.E.	8	1 0	700	34·7	33·91	182	138
M Kirriemuir (Balnakeilly)	G. Baxter, Esq., C.E.	5	1 0	700	34·1	30·40	..	..
Kirriemuir (Dykend)	G. Baxter, Esq., C.E.	5	1 0	750	..	33·00	..	..
M Kirriemuir (Creich Hill, N.)	G. Baxter, Esq., C.E.	5	1 0	1491	..	40·80	..	..
Kirriemuir (Backwater)	G. Baxter, Esq., C.E.	5	1 0	850	..	38·26	..	..
Kirriemuir (Westerton)	G. Baxter, Esq., C.E.	5	1 0	900	..	36·99	..	..
Kirriemuir (Macritch)	G. Baxter, Esq., C.E.	5	1 0	1300	..	36·85	..	..
Kirriemuir (Newton)	G. Baxter, Esq., C.E.	5	1 0	735	..	33·22	..	..
Kirriemuir (Longdrum)	G. Baxter, Esq., C.E.	5	1 0	1045	39·3	39·78	..	..
Kirriemuir (Glendye)	G. Baxter, Esq., C.E.	6	1 0	1050	41·6	44·41	..	..
Kirriemuir (Barny)	G. Baxter, Esq., C.E.	5	1 0	1130	40·2	43·45	..	..
Kirriemuir (Glenhead)	G. Baxter, Esq., C.E.	5	1 0	1340	..	44·20	..	..
Kirriemuir (Glendamff)	G. Baxter, Esq., C.E.	5	1 0	1360	39·4	45·55	..	..
2.—FIRTH OF TAY. 80 sq. mi.								
D Buddonness (Low Light)	J. H. Thompson, Esq., C.E.	5	1 0	27	26·4	23·61	196	110
D Dundee Harbour	J. H. Thompson, Esq., C.E.	5	0 11	14	27·4	23·41	159	120
D Dundee (Eastern Necropolis)	A. Macrae, Esq.	5	1 0	198	27·4	26·79	161	125
d Dundee (Camperdown Works)	Messrs. Cox Bros., Ltd.	5	1 0	300	26·8	27·99	..	..
D Dundee (College Garden)	Director of Studies	8	1 0	147	27·6	25·14	143	118
3.—SOUTH ESK & C. 371 sq. mi.								
D Carnoustie	A. F. Anderson, Esq., C.E.	8	1 0	39	27·2	27·54	195	120
D Monikie Reservoir †	G. Baxter, Esq., C.E.	5	1 0	494	34·7	31·35	161	123
D Monikie (Crombie Reservoir)	G. Baxter, Esq., C.E.	5	1 0	522	35·2	35·10	193	143
M Monikie (Fallaws)	G. Baxter, Esq., C.E.	8	3 0	585	33·2	32·62	..	..
D Arbroath (W. Cemetery)	J. W. Robertson, Esq.	5	1 0	93	25·6	25·74	154	106
W Arbroath (Muirheads Res.)	T. A. Hogg, Esq., C.E.	5	1 0	251	28·1	29·56	..	..
Forfar (Pitscandly House)	J. T. Ewen, Esq.	5	1 8	300	..	32·11	..	..
D Montrose	D. Maxwell, Esq., C.E.	5	1 0	16	26·2	26·00	145	109
D Montrose (West-End Park)	D. Maxwell, Esq., C.E.	5	1 0	9	26·0	28·08	167	119
D Brechin (Argyll Street)	J. Hutton, Esq.	5	1 0	225	34·1	34·26	183	130
D Forfar W.W. (Den of Ogil)	A. Watterston, Esq., C.E.	12 x 4	0 3	633	..	35·16	178	139
D Glenogil Waterworks	T. A. Hogg, Esq., C.E.	5	1 0	770	40·9	39·91	151	127
d Glen Prosen (Pearsie House)	G. M. Wedderburn, Esq.	5	1 0	600	39·1	36·75	..	..
4.—NORTH ESK & C. 213 sq. mi.								
Brechin (Trinity)	Miss E. A. Stevenson	8	1 0	295	32·3	30·20	..	..
D Montrose (Sunnyside Asylum)	C. K. Alexander, Esq.	5	1 0	200	27·0	28·01	173	122
D Montrose (Kinnaber W.W.)	D. Maxwell, Esq., C.E.	4	1 0	40	26·9	28·73	162	120
Brechin (Stracathro Gardens)	Mr. A. Dunlop	5	1 0	200	30·5	33·58	..	..

DIVISION XVII.—NORTH-EASTERN COUNTIES.

KINCARDINE. (Area, 382 sq. mi.)								
1.—NORTH ESK & C. 99 sq. mi.								
D Marykirk (Balmakewan)	W. Low, Esq.	5	1 1	120	30·3	32·21	172	124
D Marykirk (Balmakewan), No. 2	W. Low, Esq.	5	1 0	80	30·2	32·12	187	137
D Laurencekirk (Johnston Lodge)	R. B. Pearson, Esq.	5	1 0	400	33·1	34·70	183	129
D Fettercairn (Fasque)	Sir J. E. Gladstone, Bt.	5	0 10	320	36·0	37·40	213	142
2.—BERVIE, COWIE & C. 139 sq. mi.								
Todhead Pt. Lighthouse	Com'rs. of N. Lighthouses	5	1 9	114	..	24·89	..	113
D Stonehaven (Mains of Cowie)	John Hart, Esq.	5	1 0	93	..	26·54	183	125
Stonehaven (Ury Gardens)	Mr. W. Thomson	5	1 2	200	32·0	33·23	172	126
Girdleness	Com'rs of N. Lighthouses	7	4 0	89	..	28·98	..	..

† Formerly known as Craigton.

DIVISION XVII.—NORTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
KINCARDINE—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
3.—DEE. 144 sq. mi.								
D Strachan (Bridge of Dye)	Sir J. E. Gladstone, Bt.	5	1 0	513	43·9	41·98	214	140
D Banchory (Invery)	Major Jas. Kerr	5	1 0	225	34·8	37·77	196	149
Banchory (Woodlands Sch.)	D. B. McKelvie, Esq.	5	1 0	300	..	41·55	182	134
D Banchory (Invercannie)	T. F. Henderson, Esq., C.E.	5	1 0	205	31·9	32·05	202	123
w Durris House	(R)Andrew Reid, Esq.	5	3 0	200	34·1	36·24	..	..
ABERDEEN. (Area, 1974 sq. mi.)								
1.—DEE. 672 sq. mi.								
D Glen Muick	T. F. Henderson, Esq., C.E.	5	1 0	1370	45·1	41·62	174	155
Glen Tanner (Aitnach)	T. F. Henderson, Esq., C.E.	5	1 0	1260	41·9	38·88	..	..
D Braemar (Bank)	G. H. Sinclair, Esq.	5	10	1114	35·4	32·27	185	140
D Braemar (Derry Lodge)	T. F. Henderson, Esq., C.E.	5	1 0	1400	38·1	32·26	228	163
D Balmoral Castle Gardens	Mr. R. F. Chalmers	5	1 0	927	33·0	29·34	215	134
D Abergeldie Castle Gardens	Mr. J. Durran	5	1 0	800	32·4	28·13	150	126
D Ballater (Irrigation Farm)	T. F. Henderson, Esq., C.E.	5	1 0	637	33·2	30·38	199	125
M Beinn Bhreac	T. F. Henderson, Esq., C.E.	5	1 0	2700	47·1	37·80	..	..
D Aboyne	T. F. Henderson, Esq., C.E.	5	1 0	412	31·0	28·14	147	116
D Dess House	W. R. Davidson, Esq.	5	1 8	480	31·2	29·33	183	119
D Glen Gairn (GairnShielLodge)	T. F. Henderson Esq., C.E.	5	1 0	1100	34·4	30·60	165	139
D Glen Gairn (Corndavon)	T. F. Henderson Esq., C.E.	5	1 0	1500	37·3	32·49	182	150
D Torphins (School House)	Dr. George Davidson	5	1 4	480	..	27·84	179	138
M Lumphanan	T. F. Henderson, Esq., C.E.	5	1 0	490	31·6	26·49	..	..
D Drumoak (Drum Castle)	Mrs. Irvine	5	1 0	320	30·9	34·45	191	138
D Logie Coldstone School	J. B. Anderson, Esq.	5	1 0	608	32·0	25·07	205	125
D Aberdeen (Mannofield Res.)	T. F. Henderson, Esq., C.E.	5	1 0	171	30·5	34·68	209	140
2.—DON. 512 sq. mi.								
D Aberdeen (King's College) (+A)	The Meteorological Office	8	1 0	46	29·5	30·82	186	135
d Strathdon (Estates Office)	C. Christie, Esq.	5	1 2	990	35·0	24·80	..	125
D Craibstone (Sth. Methil Field)	Prof. J. Hendrick	5	1 0	275	33·6	36·71	211	138
D Craibstone (Woodlands Field)	College of Agriculture	8	1 0	300	31·5	34·10	199	132
D Dyce (Parkhill House)	J. E. Crombie, Esq.	8	0 11	170	31·4	33·54	198	145
M New Machar (Straloch)	Mrs. Irvine	5	4 0	320	30·7	28·20	..	..
D Inverurie (Westfield)	James Skinner, Esq.	5	1 0	207	28·3	30·30	223	142
3.—YTHAN & C. 285 sq. mi.								
D Ellon (Esslemont House)	Capt. R. Wolrige Gordon, M.C.	5	1 6	100	30·2	34·79	214	160
D Ellon (Auchmacoy)	Earl of Caithness	5	1 0	150	..	28·00	192	134
D Haddo House	Earl of Haddo	5	1 0	186	31·5	32·37	219	170
D Fyvie Castle	Col. Sir C. R. Forbes-Leith, Bt.	5	1 0	200	33·9	36·21	168	147
4.—UGIE & C. 257 sq. mi.								
D New Deer School House	J. A. Thomson, Esq.	5	1 0	397	32·3	35·76	204	165
D Peterhead (Stock Bridge)	J. Robertson, Esq.	5	1 0	150	28·5	28·85	204	144
D Peterhead (Mains of Buthlaw)	W. Johnston, Esq.	5	1 6	120	30·3	31·28	204	154
D Peterhead (Forehill Works)	J. Dickie, Esq., C.E.	5	0 8	133	30·3	31·39	210	153
D Brucklay Castle	A. Dingwall Fordyce, Esq.	5	1 0	300	..	32·68	182	156
D Brucklay Castle Gardens	A. Dingwall Fordyce, Esq.	5	1 1	300	..	35·30	215	161
Kinnaird Head	Com'rs. of N. Lighthouses	5	1 0	62	23·5	27·07	..	..
5.—DEVERON & C. 248 sq. mi.								
Huntly (Corsdean)	R. Milne, Esq.	5	1 0	390	33·2	30·63	..	..
D Huntly (Cruchie)	Miss C. Joss	5	1 0	400	31·7	30·80	227	148

DIVISION XVII.—NORTH-EASTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
BANFF. (Area, 630 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—YTHAN. 1 sq. mi.								
2.—DEVERON & C. 344 sq. mi.								
D Drummuir Castle	G. Clinton Chessor, Esq.	5	1 10	620	..	30·46	182	148
d Keith Station	F. G. Watt, Esq.	5	1 0	364	33·8	28·48	..	..
D Turriff (Forglen Gardens)	Mr. G. Stuart	5	1 0	220	31·9	29·73	211	153
D Gamrie (Clenterty P. School)	T. H. Smith, Esq.	5	1 0	420	40·1	38·42?	214	167
D Banff	I. H. Gordon, Esq.	5	0 9	130	26·8	28·22	208	138
Buckie (Rochonnie)	W. Hendry, Esq.	5	1 4	334	27·0	23·72	..	..
Buckie (West Church Street)	W. Hendry, Esq.	5	1 4	75	26·2	22·67	..	..
d Cullen House Gardens	Mr. R. Ferguson	5	1 0	100	30·6	28·47	..	..
3. SPEY—Right Bank Tributaries. 285 sq. mi.								
D Ballindalloch	C. Mackenzie, Esq.	8	1 0	630	33·0	27·68	208	146
D Aberlour Orphanage	J. G. White, Esq.	5	1 0	350	32·7	26·79	176	141
MORAY. (ELGIN.) (Area, 477 sq. mi.)								
1.—DEVERON & C. 7 sq. mi.								
2.—SPEY—Right Bank Tributaries. 35 sq. mi.								
D Gordon Castle	Mr. C. Webster	5	1 0	104	29·8	23·21	195	133
3.—SPEY—Left Bank Tributaries. 133 sq. mi.								
D Grantown-on-Spey	W. A. Watson, Esq.	5	1 1	700	31·1	27·25	199	133
D Knockando (Windmill Cottage)	Mr. L. Younie	5	1 0	600	33·3	30·30	212	152
D Aberlour (Wester Elchies)	Mr. A. Ross	5	1 0	550	34·2	26·79	198	144
4.—LOSSIE & C. 154 sq. mi.								
D Lhanbryde (Blackhills House)	T. N. Christie, Esq.	5	3 6	310	29·2	25·32	197	148
D Elgin (Kirkhill)	P. J. Macdonald, Esq.	5	1 7	35	..	22·58	163	133
M Elgin (Rotha)	W. C. Young, Esq.	5	1 0	80	25·8	20·25	..	..
D Duffus House	Mr. W. Ogg	5	1 0	55	25·4	21·94	168	133
d Duffus (Hopeman Lodge)	Mrs. Gordon Duff	8	0 6	65	..	21·57	..	..
5.—FINDHORN & C. 148 sq. mi.								
D Forres (Drumduan)	The MacKinnon of MacKinnon	5	0 9	120	..	22·45	165	125
d Kinloss (Findhorn)	Major T. Ross	5	0 9	15	..	20·56	..	..
NAIRN. (Area, 163 sq. mi.)								
1.—FINDHORN & C. 102 sq. mi.								
D Ardclach (Glenferness)	Mr. A. McKenzie	8	1 6	700	..	32·81	188	159
Lethen	Col. Hon. I. M. Campbell, D.S.O.	5	1 1	350	..	24·14	..	164
2.—NAIRN & C. 61 sq. mi.								
D Cawdor Castle	Mr. James Taylor	8	4 3	225	29·2	30·25?	224	162
D Nairn (Balblair)	Major H. C. H. Allanby	5	1 0	94	24·5	20·97	194	118
D Nairn (Achareidh)	Major K. S. Clarke	8	1 0	59	24·3	22·42	213	129
D Nairn (Delnies)	The Meteorological Office	8	1 9	82	24·9	21·61	198	111

DIVISION XVIII.—NORTH-WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
INVERNESS. (Area, 4,146 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in*		
1.—TAY—Tummel. 28 sq. mi.								
2.—SPEY—Right Bank Tributaries. 437 sq. mi.								
D Dalwhinnie (Drumochter Lo.)	Mr. D. Kennedy	5	1 0	1375	58·7	57·00	236	208
Glen Tromie (Gaick Lodge)	Mr. W. MacPherson	5	1 0	1500	53·8	41·07?	..	..
D Nethy Bridge (U.F. Manse)	Rev. John Ross	5	1 0	750	27·5	22·50	177	119
3.—SPEY—Left Bank Tributaries. 257 sq. mi.								
D Cluny Castle	Mr. A. Macdonald	5	1 0	816	40·8	39·51	230	179
M Loch Spey	British Aluminium Co. Ltd.	5	1 0	1164	66·4	66·20	..	..
D Glen Spey (Mealgarve)	British Aluminium Co. Ltd.	8	1 0	1135	50·7	52·84	246	209
D Laggan (Gergask)	British Aluminium Co. Ltd.	8	1 0	870	38·4	37·65	225	173
D Kingussie	British Aluminium Co. Ltd.	8	1 0	815	29·4	28·78	222	145
d Alvie Manse	Rev. Dugald Maclean	5	1 0	750	30·3	31·28	..	..
D Carr Bridge (Crannich)	Mrs. J. A. Doak	5	1 0	900	28·6	25·07	194	131
4.—FINDHORN. 164 sq. mi.								
5.—NAIRN & C. 131 sq. mi.								
6.—NESS—Right Bank Tributaries. 252 sq. mi.								
D Fort Augustus (St. Benedict's)	The Procurator	5	1 0	68	44·2	40·64	228	163
M Loch Ness (Killin, Whitebridge)	British Aluminium Co. Ltd.	8	1 0	1200	47·9	40·35	..	..
D Loch Ness (Garthbeg)	British Aluminium Co. Ltd.	8	1 0	645	41·5	36·19	227	173
D Loch Ness (Foyers)	British Aluminium Co. Ltd.	8	1 0	52	38·2	37·04	203	150
D Loch Ness (Aberchalder)	British Aluminium Co. Ltd.	8	1 0	700	35·8	35·13	171	148
D Inverness (Culduthel Res.)	A. Knowles, Esq.	5	1 0	242	26·7	23·13	172	113
7.—NESS—Garry &c. 185 sq. mi.								
D Loch Quoich (Glenquoich)	T. Mackenzie, Esq.	5	1 2	569	110·8	118·46	239	225
8.—NESS—Moriston. 120 sq. mi.								
9.—NESS—Enrick. 131 sq. mi.								
D Inverness (Ruigh Ard Asylum)	Dr. T. C. Mackenzie	5	0 11	330	29·9	26·39	212	134
10.—BEAULY. 341 sq. mi.								
D Beauly (Culmill)	W. L. McWilliam, Esq.	5	1 0	190	..	31·24	170	135
11.—CROMARTY FIRTH. 13 sq. mi.								
12.—SOUND OF SLEAT. 259 sq. mi.								
D Loch Nevis (Inverie Gardens)	Mr. J. Huggins	5	1 0	15	85·6	84·19	238	222
D Glenelg Manse	Rev. A. Mactaggart	5	1 0	85	57·3	59·38	224	201
13.—SOUND OF ARISAIG. 126 sq. mi.								
D Moidart (Kinlochmoidart)	J. C. Stewart, Esq.	5	1 0	13	69·4	76·13	225	214
D Moidart (Roshven)	Mrs. Wm. Blackburn	5	1 0	40	67·6	74·05	237	213
D Arisaig (Faire-na-Sguir)	Miss C. C. Astley	5	1 0	30	55·7	53·48	242	203
D Arisaig House	Mr. W. Grant	5	1 0	40	62·9	68·17	228	212
d Mallaig Manse	Rev. D. M. Sinclair	5	1 0	150	55·0	51·98	229	..
14.—LOCH LINNHE—Right Bank Tributaries. 48 sq. mi.								
d Loch Eil (Achdalieu)	Col. D. W. Cameron	5	1 0	100	64·6	61·20	..	180
15.—LOCHY—Right Bank Tributaries. 143 sq. mi.								
D Loch Arkaig (Achnacarry)	Col. D. W. Cameron	5	1 0	128	83·6	80·76	246	214
d Loch Arkaig (Glendessary)	Col. D. W. Cameron	5	1 0	300	109·5	106·90	..	223

DIVISION XVIII.—NORTH-WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
INVERNESS—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
16.—LOCHY—Left Bank Tributaries. 362 sq. mi.								
Loch Treig (Creaguaineach)	British Aluminium Co.,Ltd.	5	1 0	800	70·7	78·10	..	..
Loch Ossian (Strathossian Ho.)	British Aluminium Co.,Ltd.	8	1 0	1180	66·9	74·58	..	..
Fort William(Allt'aMhuilinn)	British Aluminium Co.,Ltd.	8	1 0	1000	85·0	93·04	..	..
D Fort William (The Factory)	BritishAluminium Co.,Ltd.	8	1 0	75	..	74·80	239	213
Roybridge (Lairig Road)	British Aluminium Co.,Ltd.	8	1 0	1650	89·5	96·19	..	..
Spean Bridge (The Cour)	British Aluminium Co.,Ltd.	5	1 0	1050	..	97·47	..	..
Spean Bridge (Sgurr Finisgaig)	British Aluminium Co.,Ltd.	8	1 0	2000	95·0	94·65	..	..
Loch Treig (Fersit)	British Aluminium Co.,Ltd.	8	1 0	850	59·9	65·84	..	..
Loch Treig (Allt Laire)	British Aluminium Co.,Ltd.	5	1 0	1050	..	60·02	..	..
D Roy Bridge (Allt Leachdach)	British Aluminium Co.,Ltd.	8	1 0	650	..	59·62	225	188
M Loch Pattaig	Sir J. F. Ramsden, Bt.	5	0 8	1442	64·0	47·55?	..	..
Glen Spean (Craigbeg)	British Aluminium Co.,Ltd.	8	1 0	860	52·8	55·13	..	..
W Loch Lochy (Invergloy)	Mr. J. Strang	5	1 0	200	58·5	66·39	..	..
M Loch Laggan (Ardverikie)	Sir J. F. Ramsden, Bt.	5	0 6	825	54·4	55·50	..	..
17.—LOCH LINNHE—Left Bank Tributaries. 120 sq. mi.								
D North Ballachulish(Alltshellach)	B. Chinnery-Haldane, Esq.	5	2 1	80	76·9	76·04	242	211
D Onich	Forestry Commission	5	1 3	48	..	77·70	240	201
D Glenleven(BlackwaterDam,N) 7	British Aluminium Co.,Ltd.	8	1 0	1072	85·8	94·01	254	227
D Kinlochleven (Kinlochmore Lo.)	Mr. D. MacKenzie	5	1 0	115	96·7	94·01	250	225
Kinlochleven (Mamore Lodge)	Mr. D. MacKenzie	5	1 8	700	99·5	98·56	..	..
Glenleven (Invercam) No. 6	British Aluminium Co.,Ltd.	8	1 6	1070	77·3	80·38	..	..
Glenleven (Ciarin) No. 3	British Aluminium Co.,Ltd.	8	1 6	1200	84·9	79·73	..	..
Glenleven (Loch Eilde Mhor) 8	British Aluminium Co.,Ltd.	8	1 6	1130	99·4	97·52	..	..
Glenleven(Loch Eilde Beg) No. 9	British Aluminium Co.,Ltd.	8	1 6	1125	100·0	95·95	..	..
Glenleven (Corrour) No. 5	British Aluminium Co.,Ltd.	8	1 6	1260	71·2	72·35	..	..
D Fort William	J. Brown, Esq.	5	1 0	216	78·8	79·73	239	211
18.—INSULAR, INNER HEBRIDES. 786 sq. mi.								
D Isle of Eigg	Rt. Hon. Walter Runciman,P.C.	8	2 8	150	53·5	57·35	..	196
Hyskier	Com'rs. of N. Lighths's	5	0 5	31	40·0	50·84	..	202
D Skye (Kyleakin, Dunringell)	Maj.A.D.Mackinnon,C.M.G.	5	2 1	80	62·4	64·28	247	215
Kyleakin Lighthouse	Com'rs. of N. Lighthouses	5	0 8	28	60·8	54·98	215	195
Oronsay Lighthouse	Com'rs. of N. Lighthouses	5	0 6	10	52·7	43·72	..	202
D Skye (Scalpay Island)	Mr. D. Gunn	5	1 0	4	75·1	78·58	254	216
D Skye (Portree)	D. Dewar, Esq.	5	1 0	65	61·7	67·75	256	222
Skye (N. Eist Point)	Com'rs. of N. Lighthouses.	5	0 8	65	50·0	48·40	..	177
D Skye (Dunvegan)	Mrs. Mackenzie	5	3 0	47	65·8	63·11	247	217
Rona	Com'rs. of N.Lighthouses	5	1 3	202	42·5	33·84?	208	178
19.—INSULAR, OUTER HEBRIDES. 243 sq. mi.								
Glas Island Lighthouse	Com'rs. of N. Lighthouses	5	0 9	31	43·3	33·73?	233	196
Monach Lighthouse	Com'rs. of N. Lighthouses	8	0 4	2	46·6	35·85	..	..
D Barra (Skallary)	J. Smith, Esq.	8	0 10	26	..	44·61	256	206
D Lochmaddy (Rudha-nan-Gall)	R.MacDonald,Esq.,C.M.G.	5	1 0	12	47·7	40·76	252	208
D Lochmaddy (Vallay)	George Beveridge, Esq.	5	1 1	30	36·0	37·08	227	187
D N. Harris (Amhuinsuidh Castle)	Norman Robertson, Esq.	5	1 3	12	57·5	52·23	243	213
ROSS & CROMARTY. (Area, 3,237 sq. mi.)								
1.—NESS—Moriston. 35 sq. mi.								
2.—BEAULY. 109 sq. mi.								
Monar	John Stirling, Esq.	5	0 9	700	..	72·05	..	..
3.—MORAY FIRTH COAST STREAMS. 64 sq. mi.								
D Fortrose	A. Thom, Esq.	5	1 0	69	23·4	19·68	184	116
d Fearn (Geanies)	Mr. A. Munro	5	0 11	200	23·1	21·19	..	118

DIVISION XVIII.—NORTH-WESTERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with .01 in. or more.	Days with .04 in. or more.
ROSS & CROMARTY—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—CROMARTY FIRTH. 714 sq. mi.								
d Muir of Ord (Fairburn)	Major J. S. Stirling	5	1 0	500	..	30·67	..	..
D Strathpeffer	W. P. Hutton, Esq.	8	1 0	125	30·5	27·48	215	151
D Dingwall (The Academy)	G. L. Turnbull, Esq.	5	1 0	18	29·0	24·42	207	137
d Cromarty House	Mr. A. Ross	5	1 0	80	25·1	21·29	..	..
Cromarty	Com'rs. of N. Lighthouses.	5	1 0	21	24·4	19·25?	..	..
D Alness (Ardross Castle)	Mr. John Melrose	5	1 0	450	38·5	30·11	231	156
5.—DORNOCH FIRTH. 355 sq. mi.								
D Tain (Ardlarach)	Col. C. MacIver Ritchie	5	1 0	400	29·4	28·66	228	145
Tarbetness	Com'rs. of N. Lighthouses.	5	1 10	62	23·0	20·65	196	133
6—ENARD BAY. 78 sq. mi.								
7.—LOCH BROOM & C. 367 sq. mi.								
Loch a' Bhraoin (Vroain)	Rev. Sir Montague-Fowler, Bt.	8	0 9	822	62·2	57·87	..	..
Loch Drome	Rev. Sir Montague-Fowler, Bt.	8	0 7	905	63·4	52·70	..	..
Braemore House	Rev. Sir Montague-Fowler, Bt.	8	0 7	800	61·9	55·47	..	..
Inverbroom House	Rev. Sir Montague-Fowler, Bt.	8	0 7	50	54·7	49·75	..	..
D Ullapool	Dr. D. Wallace	5	1 6	75	48·0	46·82	249	201
8.—LOCH EWE, LOCH TORRIDON & C. 423 sq. mi.								
D Loch Torridon (Bendamph)	Earl of Lovelace	5	1 0	20	85·1	76·73	242	232
D Poolewe (Inverewe Gardens)	Mr. W. Hepburn	5	0 6	20	55·2	53·58	253	211
Rudh Ré Lighthouse	Com'rs. of N. Lighthouses.	5	0 6	53	39·0	37·06	248	201
9.—LOCH CARRON, LOCH ALSH & C. 401 sq. mi.								
D Glenshiel (Ratagan	Forestry Commission	5	1 0	12	80·0	82·67	210	203
Loch Carron (Strome Ferry)	Mr. D. D. Munro	5	1 0	50	64·7	63·22	..	..
D Loch Carron (Dunhulladale)	Mrs. G. J. Campbell	5	1 0	9	70·5	71·28	274	209
Applecross Gardens	Mr. J. McCowan	5	1 0	70	57·3	50·18	..	..
D Achnashellach	Forestry Commission	5	1 0	225	79·2	82·07	243	221
10.—INSULAR, OUTER HEBRIDES. 691 sq. mi.								
Tiumpan Head Lighthouse	Com'rs. of N. Lighthouses.	5	1 0	103	43·5	42·53	..	..
Stornoway Lighthouse	Com'rs. of N. Lighthouses.	5	0 6	28	46·0	45·96	252	219
D Stornoway	The Meteorological Office	8	1 0	30	49·9	47·68	263	215
Butt of Lewis Lighthouse	Com'rs of N. Lighthouses.	8	3 9	51	39·6	28·48?	..	..

DIVISION XIX.—NORTHERN COUNTIES.

SUTHERLAND. (Area, 2080 sq. mi.)								
1.—DORNOCH FIRTH. 413 sq. mi.								
D Lairg	A. Gunn, Esq.	5	1 0	330	37·3	35·68	190	153
2.—FLEET, BRORA & C. 309 sq. mi.								
d Golspie (Technical School)	E. W. Read, Esq.	6	1 2	100	32·2	28·09	..	..
3.—HELMSDALE & C. 226 sq. mi.								

DIVISION XIX.—NORTHERN COUNTIES—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
SUTHERLAND—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
4.—NORTH COAST STREAMS 736 sq. mi.								
d Forsinard Station	Mr. W. Simpson	5	1 4	505	..	36·08	..	..
D Skerray (Borgie)	Mr. C. Spence	5	1 0	110	37·5	40·95	250	200
D Tongue	Mr. A. Sargent	5	1 0	180	41·0	39·88	258	189
Cape Wrath	Com'rs. of N. Lighthouses.	5	0 9	346	..	34·84	222	198
5.—LOCH LAXFORD & C. 256 sq. mi.								
D Loch More (Achfary)	Mr. J. Munro	5	1 0	137	75·8	81·70	270	236
6.—ENARD BAY. 138 sq. mi.								
Stour Head	Com'rs. of N. Lighthouses.	5	0 10	174	35·8	25·99?	220	165
7.—INSULAR. 2 sq. mi.								
CAITHNESS. (Area, 696 sq. mi.)								
1.—BERRIEDALE, DUNBEATH & C. 169 sq. mi.								
Berriedale (Langwell)	Duke of Portland	5	1 6	150	..	34·66	..	..
Clythness	Com'rs. of N. Lighthouses.	5	1 5	133	29·6	30·73	..	142
2.—WICK & C. 184 sq. mi.								
D Wick (South Head C. G. Stn.)	The Meteorological Office	8	1 2	81	29·9	33·10	246	166
Nosshead	Com'rs. of N. Lighthouses.	5	0 9	129	25·1	29·61	..	137
3.—THURSO & C. 238 sq. mi.								
D Altnabreac	Mr. G. MacLennan	5	1 0	500	34·4	38·50	213	183
D Thurso (Buckies)	J. H. M. Davidson, Esq.	5	0 1	240	39·0	43·09	229	201
Thurso (Holburn Head)	Com'rs. of N. Lighthouses.	5	0 8	68	32·0	24·71?	..	..
Dunnet Head	Com'rs. of N. Lighthouses.	5	1 0	331	30·2	38·44?	267	217
Duncansby Head	Com'rs. of N. Lighthouses.	5	..	196	31·4	32·69	188	164
4.—FORSS & C. 104 sq. mi.								
D Reay (The Manse)	Rev. Dugald Carmichael	9	1 0	49	36·2	38·89	264	190
5.—INSULAR. 1 sq. mi.								
Stroma	Com'rs. of N. Lighthouses.	5	3 0	54	25·5	30·17	189	173
ORKNEY. (Area, 389 sq. mi.)								
Hoy (Cantickhead)	Com'rs. of N. Lighthouses	5	3 10	68	35·5	39·55	..	..
Pentland, Skerries Lighthouse	Com'rs. of N. Lighthouses	5	3 0	70	..	31·62	234	160
Hoy (Graemsay Sound, High)	Com'rs. of N. Lighthouses	5	1 4	29	35·9	38·48	217	189
Hoy (Graemsay Sound, Low)	Com'rs. of N. Lighthouses	8	4 4	40	36·7	42·04	242	199
D Kirkwall (Bignold Park)	J. Davidson, Esq.	5	1 0	125	..	41·22	257	193
D Pomona (Deerness)	The Meteorological Office	5	1 0	160	35·4	38·34	256	191
Hellyar Holm	Com'rs. of N. Lighthouses	5	1 3	35	..	38·03	278	213
Shapinsay (Balfour Castle)	Mr. W. Liddell	5	0 6	50	31·6	35·86	..	..
Auskerry	Com'rs. of N. Lighthouses	5	1 0	22	..	32·03	229	184
Sanday (Start Point)	Com'rs. of N. Lighthouses	5	1 0	27	32·3	38·37	226	200
North Ronaldshay	Com'rs. of N. Lighthouses	5	0 9	22	..	40·26	225	186
SHETLAND. (Area, 558 sq. mi.)								
D Lerwick (Ft. Charlotte)	The Meteorological Office	8	1 0	54	..	45·98	236	202
D Lerwick Observatory (+A)	The Meteorological Office	8	1 0	269	..	40·20	252	181
Eshaness	Com'rs. of N. Lighthouses.	..	..	..	..	(37·87)	..	..
D Bixter (Vementry)	Andrew Tait, Esq.	5	1 1	25	..	40·23	257	194
Unst (Baltasound, Halligarth)	Dr. T. E. Saxby	5	1 0	31	..	41·85	297	211

IRELAND.

DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain-gauge: Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
CORK. (Area, 2873 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—SHANNON—Left Bank Tributaries. 79 sq. mi.								
2.—DINGLE BAY. 4 sq. mi.								
3.—KENMARE & C. 47 sq. mi.								
4.—BANTRY BAY. 197 sq. mi.								
Bantry House	Mrs. Shelswell-White	5	1 0	25	57·2	64·13	..	173
D Garinish Island	M. Mackenzie, Esq.	5	1 0	24	70·4	79·10	211	188
5.—DUNMANUS BAY. 57 sq. mi.								
6.—BANDON & C. 694 sq. mi.								
d Toormoor (Altar Rectory)	Rev. R. J. Colthurst	5	0 10	60	..	(50·43)	..	..
D Castle Townshend (Glen Barrahane)	Sir M. P. Coghill, Bt.	5	1 3	100	44·7	49·68	206	166
D Castle Townshend (Seaheld)	Major H. Chavasse	5	1 0	40	47·6	53·05	204	166
D Skibbereen (Hollybrook Farm)	Capt. C. M. Morgan	8	1 6	60	53 6	61·78	196	169
D Caheragh (The Rectory)	Rev. A. W. Whitley	5	1 0	98	56 7	63·91	213	182
D Clonakilty (Shannon Vale Ho.)	T. J. Bennett, Esq.	5	1 3	135	42·9	47·42	183	165
D Kinsale (Scilly House)	J. J. Orr, Esq., M.D.	5	1 0	62	38·5	45·76	193	149
D Kinsale (Nohoval Rectory)	Rev. H. Hadden	5	..	272	39·0	44·04	180	155
D Dunmanway (The Rectory)	Rev. Canon A. Wilson	5	1 6	205	61·0	70·21	222	184
7.—CORK HARBOUR. 720 sq. mi.								
d Cork (Cornmarket)	D. J. O'Mahoney, Esq.	5	1 0	17	38·8	44·68	..	..
D Cork (University College). (+A)	Prof. H. N. Walsh	5	1 0	65	40·0	46·18	198	155
D Cork (Wellington Road)	R. C. Sikes, Esq., C.E.	5	2 2	120	40·3	47·05	191	156
D Midleton (Ballinacurra)	J. H. Bennett, Esq.	8	1 0	24	40·4	39·90?	192	145
D Glanmire (Lota Lodge)	No. 1 A. F. Sharman-Crawford, Esq	5	1 0	200	42·6	48·00	211	161
8.—WOMANAGH & C. 118 sq. mi.								
D Roches Point	The Meteorological Office	8	1	22	41·9	46·83	191	166
D Shanagarry (Kinoith)	Miss L. P. Strangman	5	1 0	75	35·2	40·17	170	135
9.—BLACKWATER. 922 sq. mi.								
D Mallow (Longueville)	R. E. Longfield, Esq.	5	1 0	310	37·3	44·79	221	159
D Mallow (Hazlewood)	E. McLysaght, Esq.	5	1 0	360	39·5	41·85	189	174
Kanturk (Castlecor)	Mrs. Norton Barry	..	..	..	37·6	43·67	220	175
10.—SUIR. 3 sq. mi.								
11.—INSULAR. 26 sq. mi.								

DIVISION XX.—MUNSTER—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
KERRY. (Area, 1851 sq. mi.)		*in.*	*ft. in.*		*in.*	*in.*		
1.—SHANNON—Left Bank Tributaries. 372 sq. mi.								
2.—TRALEE BAY & C. 221 sq. mi.								
3.—DINGLE BAY. 789 sq. mi.								
D Cahirciveen (Valentia Obs.) (+A)	The Meteorological Office..	8	1 0	30	55·7	60·30	240	195
M Gap of Dunloe (Gearhameen)..	The Meteorological Office..	8	3 0	75	91·6	99·30	..	..
Killarney (Muckross Garden)..	A. R. Vincent, Esq.*.....	..	..	100	56·6	71·01	..	..
Killarney (Muckross Lawn) ..	A. R. Vincent, Esq.*.....	..	..	100	56·8	67·90	..	..
D Killarney (Flesk Mills).....	J. Lawlor, Esq.....	8	2 6	96	54·9	60·60	199	174
D Killarney (Mental Hospital) ...	E. W. Griffin, Esq., M.D...	5	1 2	173	54·7	48·58?	228	181
D Killarney (Lakeview)	Capt. Sir M. O'Connell, Bt., M.C.	5	1 0	120	55·5	58·25	202	184
Killorglin Callinafercy	Maj. M. R. Leeson-Marshall	5	1 0	30	51·9	54·03	..	182
d Bally McElligott Rectory	Rev. G. Maxwell	5	0 11	20	..	(46·30)	..	..
4.—KENMARE & C. 426 sq. mi.								
D Darrynane Abbey	Miss M. O'Connell	5	1 0	13	51·0	54·50	239	19
d Kilgarvan (Inchimore)	Prof. H. N. Walsh	5	1 0	470	105·0	113·96	..	..
D Kenmare (Dromore Castle)	Lt.-Col. E. Hood	5	1 4	90	65·1	76·26	245	209
D Kenmare (Sheen Falls).....	Marquess of Lansdowne ..	5	0 5	25	65·6	71·28	245	201
5.—BLACKWATER. 30 sq. mi.								
6.—INSULAR. 13 sq. mi.								
WATERFORD. (Area, 715 sq. mi.)								
1.—BLACKWATER. 243 sq. mi.								
2.—COLLIGAN & C. 259 sq. mi.								
D Kilmacthomas (Comragh Ho.) .	Miss M. Fairholme	5	1 0	350	..	64·06	204	167
3.—SUIR. 213 sq. mi.								
D Knockaderry Reservoir (No. 2)	D. Sheedy, Esq.....	5	1 0	248	41·3	58·03	200	146
D Waterford (Brook Lodge)	Miss Bolton	5	1 0	104	39·5	46·34	180	145
D Waterford (Gortmore)	Mrs. N. H. White	5	1 2	137	38·9	48·11	195	143
D Portlaw (Mayfield)	Mr. M. Sheehan	8	0 10	25	43·1	56·08	200	157
D Carrick-on-Suir (Seskin)	Louis Grubb, Esq.	8	1 0	542	45·0	49·15	208	158
TIPPERARY. (Area, 1660 sq. mi.)								
1.—SHANNON—Left Bank Tributaries. 582 sq. mi.								
Cappaghwhite (Greenfields Stud)	Mr. P. Schofield	5	1 0	350	36·4	37·34	..	..
D Nenagh (Traverston)	Miss A. H. Norris	5	1 0	333	45·2	46·11	241	192
D Killaloe (Ballina)	Office of Public Works	5	1 0	126	47·4	49·88	220	184
D Nenagh (St. Mary's Rectory) ..	Rev. Canon C. W. McDowell	5	1 0	180	37·0	45·42	186	158
D Nenagh (Castle Lough).....	S. Parker-Hutchinson, Esq.	5	1 3	120	39 5	41·69	203	167
d Borrisokane	Shannon Power Dvlopmt..	5	1 10	200	..	33·58	..	143
Terryglass (Old Court)	M. D. Hickie, Esq.	5	1 0	150	34·5	35·89	209	164
Terryglass (Slevoyre)	B.-Gen. C. J. Hickie, C.M.G.	8	1 0	143	31·9	(34·49)	185	..

* *Per* Irish Rainfall Association.

DIVISION XX.—MUNSTER—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with .01 in. or more.	Days with .04 in. or more.
TIPPERARY—(*con.*).		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
2.—BLACKWATER. 21 sq. mi.								
3. SUIR. 965 sq. mi.								
Clonmel (Coolgreany)	Mrs. J. Crean*	8	1 0	100	37·9	40·15	..	..
D Cahir (Abbey)	Mrs. W. Rochfort	5	1 0	160	39·2	40·43	203	155
D Cashel (Ballinamona)	E. W. M. Murphy, Esq.	5	1 0	262	36·8	37·45	217	159
d Templemore (Barnane)	Capt. A. Carden, R.A.	5	1 0	650	46·0	43·43	..	178
d Clonoulty (Corbally)	A. Moyniham, Esq.*	5	1 0	315	..	39·68	..	145
4.—BARROW—Nore. 92 sq. mi.								
D Roscrea (Timoney Park)	S. Parker-Hutchinson, Esq.	5	1 0	475	36·2	32·94	183	159
LIMERICK. (Area, 1040 sq. mi.)								
1.—SHANNON—Right Bank Tributaries. 7 sq. mi.								
2.—SHANNON—Left Bank Tributaries. 944 sq. mi.								
D Abbeyfeale (Springmount Sch.)	J. F. O'Kelly, Esq.	5	1 0	360	41·1	45·25	162	153
D Knocklong (Kilfrush)	F. J. B. Gubbins, Esq.	5	1 0	312	37·8	39·27	211	168
D Foynes (Coolnanes)	Lord Monteagle	5	1 0	50	39·7	40·09	220	164
D Foynes (National School)	W. Purtill, Esq.	5	2 8	15	39·5	40·29	192	151
D Limerick (Mulgrave Street)	Messrs. W. J. Shaw & Sons	5	1 1	60	38·5	38·63	228	166
Limerick (Boat Club)	W. J. C. Horne, Esq.	5	1 0	50	38·6	41·59	..	166
D Castleconnell Rectory	Rev. Canon L. G. Davis	5	1 0	88	41·2	39·54	173	151
3.—BLACKWATER. 64 sq. mi.								
4.—SUIR. 25 sq. mi.								
CLARE (Area, 1270 sq. mi.)								
1.—GALWAY BAY, SOUTH. 100 sq. mi.								
2.—MAL BAY & C. 294 sq. mi.								
Kilkee (Marine Parade)	R. N. Griffin, Esq.	5	1 6	50	41·8	44·63	..	..
D Inagh (Mount Callan)	Capt. R. G. Tottenham	5	1 0	479	67·2	66·20	211	192
3.—SHANNON—Right Bank Tributaries. 854 sq. mi.								
D O'Briensbridge (The Weir)	Shannon Power Dvlopmt.	5	2 2	82	40·3	42·19	214	162
D Dromoland Castle	Late Lord Inchiquin	5	1 6	45	40·0	42·13	191	175
D Broadford (Hurdlestown)	Lt.-Col. W. A. Bentley	5	1 0	167	39·7	44·82	231	180
D Tuamgraney (Raheen Ho.)	E. MacLysaght, Esq.	5	40 0	230	41·9	40·97	208	175
4.—INSULAR. 22 sq. mi.								

* *Per* Irish Rainfall Association.

DIVISION XXI.—LEINSTER.

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge: Height of Rim above Ground.	Rain-gauge: Height of Ground above Sea Level.	Average Rainfall.	1929: Rainfall.	1929: Days with ·01 in. or more.	1929: Days with ·04 in. or more.
WEXFORD. (Area, 902 sq. mi.)		*n.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—BARROW. 43 sq. mi.								
2.—OWENDUFF & C. 240 sq. mi.								
D Foulks Mills (Longraigue)	Miss J. Deane	5	1 1	220	39·3	51·10	194	151
3.—SLANEY & C. 467 sq. mi.								
d Johnstown Castle	Lady Maurice Fitzgerald	5	1 0	201	37·0	49·89	..	139
D Enniscorthy Rectory	Rev. Canon H. C. Lyster	5	1 0	100	37·2	44·81	193	153
D Enniscorthy (Monksgrange)	Goddard H. Orpen, Esq.	5	1 0	565	49·0	54·70	202	160
Enniscorthy (Woodbrook)	E. C. Blacker, Esq.	5	1 0	370	48·8	56·12	194	182
D Newtownbarry (Weston)	G. T. Lewis, Esq.	5	1 0	153	42·4	47·78	177	140
4.—OWENAVORRAGH & C. 146 sq. mi.								
D Gorey (Courtown House)	Earl of Courtown	5	3 0	60	34·7	42·25	172	130
d Gorey (Ram's Gate)	Lt.-Cmdr. A. C. L. Ellis, R.N.R.	5	4 2	170	..	(43·94)	..	..
5.—OVOCA & C. 6 sq. mi.								
KILKENNY. (Area, 798 sq. mi.)								
1.—SUIR. 162 sq. mi.								
2.—BARROW—Nore. 527 sq. mi.								
D Kilkenny Castle	Earl of Ossory	8	1 6	194	33·1	33·47	207	143
D Castlecomer House	Capt. R. H. Prior-Wandesforde	5	1 0	380	39·6	38·68	190	152
3.—BARROW. 109 sq. mi.								
D Goresbridge (Barraghcore)	Miss M. Fleming	5	1 0	130	32·1	32·13	193	147
WICKLOW. (Area, 781 sq. mi.)								
1.—BARROW. 12 sq. mi.								
2.—SLANEY. 200 sq. mi.								
D Shillelagh (Coollattin Gardens)	Mr. F. W. Cox	5	0 9	383	41·9	43·45	158	145
3.—OVOCA & C. 241 sq. mi.								
D Rathdrum (Avondale)	A. C. Forbes, Esq.	5	1 0	400	41·5	48·23	174	137
4.—VARTRY & C. 193 sq. mi.								
D Rathnew, (Clonmannon)	R. H. S. Truell, Esq.	5	1 6	27	33·1	35·70	185	126
D Roundwood (Vartry Lodge)	Dublin Corporation	5	1 8	720	45·0	43·08	191	139
Roundwood	Dublin Corporation*	5	1 8	750	44·6	43·76	..	..
D Newcastle (Killadreenan)	Dr. C. Denys Hanan	8	1 2	256	36·0	38·66	170	133
D Greystones (Burnaby Lodge)	Capt. C. H. West	5	1 0	95	..	43·21	172	130
5.—LIFFEY & C. 135 sq. mi.								
D Blessington Rectory	Rev. W. Reeves Scully	5	0 8	670	38·0	36·78	194	143

* *Per* Irish Rainfall Association.

DIVISION XXI.—LEINSTER—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
CARLOW. (Area, 346 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—BARROW—Nore. 9 sq. mi.								
2.—BARROW. 216 sq. mi.								
D Bagnalstown (Fenagh House)	D.R.P.Beresford,Esq.O.B.E.	5	1 0	340	34·9	36·79	189	148
d Carlow (Belmont)	Capt. E. M. Thomas	5	1 0	191	34·8	36·42	..	147
D Carlow (Browne's Hill)	Brig.-Gen.R.Browne Clayton	5	1 0	291	34·1	34·32	222	148
3.—SLANEY. 121 sq. mi.								
D Rathvilly (Lisnavagh Gardens)	C. E. Faulkner, Esq.	5	4 0	400	36·9	38·81	228	165
D Hacketstown Rectory	Rev. C. S. S. Ellison	5	1 2	590	39·5	40·49	224	159
LEIX (QUEEN'S CO.) (Area, 664 sq. mi.)								
1.—SHANNON—Left Bank Tributaries. 25 sq. mi.								
2.—BARROW—Nore. 339 sq. mi.								
D Abbey Leix (Blandsfort)	Mrs. Hum Bland	5	1 6	532	36·5	36·43	210	159
D Mountrath (Baunreagh)	A. C. Forbes, Esq.	5	1 0	810	54·2	49·13	195	178
3.—BARROW. 300 sq. mi.								
D Carlow (Sunnyside)	E. Shackleton, Esq.	5	1 0	178	33·2	40·30	197	150
d Mountmellick (Summer Grove)	W. A. Robinson, Esq.	5	1 0	252	38·5	38·05	..	..
OFFALY (KING'S CO.) (Area, 772 sq. mi.)								
1.—SHANNON—Left Bank Tributaries. 560 sq. mi.								
D Birr Castle	Earl of Rosse	8	1 0	175	32·6	34·21	207	153
D Meelick (Victoria Lock)	Office of Public Works	5	1 0	121	29·9	31·45?	201	142
d Banagher	Shannon Power Dvlopmt.	5	..	130	30·8	34·14	..	144
Tullamore(St. Vincent's Hosp.)	Dr. G. A. Moorhead	5	1 0	225	32·6	35·54	260	..
D Ferbane (Turraun Peat Works)	Leinster Carbonizing Co.	8	1 2	165	32·5	29·62	185	150
D Ballycumber (Bellair Ho.)	Mrs. F. B. Mulock	5	..	290	33·9	34·40	192	156
2.—BARROW—Nore. 5 sq. mi.								
3.—BARROW. 156 sq. mi.								
Edenderry (Tubberdaly Ho.)	J. Murphy, Esq.	5	1 0	330	33·5	35·06	..	..
4.—BOYNE. 51 sq. mi.								
KILDARE. (Area, 654 sq. mi.)								
1.—BARROW. 332 sq. mi.								
d Athy (Cromaboo Bridge)	Office of Public Works	5	0 11	185	..	(29·87)	(173)	(137)
d Monasterevin (Pass Bridge)	Office of Public Works	5	0 8	208	..	(31·60)	(182)	(142)
2.—LIFFEY. 246 sq. mi.								
D Straffan House	F. B. Barton Esq.	5	1 0	256	31·4	28·84	179	142
D Clongowes Wood College	Rev. C. H. Barrett, S.J.	8	1 4	246	30·2	29·46	181	133
3.—BOYNE. 76 sq. mi.								

* *Per* Irish Rainfall Association.

DIVISION XXI.—LEINSTER—(*con.*).

STATIONS.	AUTHORITIES.	Diam.	Rain-gauge Height of Rim above Ground.	Rain-gauge Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
DUBLIN. (Area, 354 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—VARTRY & C. 23 sq. mi.								
D Shankill (Sherrington)	Lt.-Col. J. C. W. Erck	5	1 0	115	29·6	32·18	161	126
Carrickmines (Claremount)	John O. B. Read, Esq.	5	0 11	300	30·6	33·00	..	..
D Killiney (Rathleigh)	H. R. Maunsell, Esq.	5	1 0	..	28·1	32·14	152	116
2.—LIFFEY & C. 188 sq. mi.								
‡D Stillorgan (Vartry Res.)	Dublin Corporation	5	1 4	278	28·0	30·65	180	137
D Stillorgan (Farmleigh)	T. Jackson, Esq.	5	1 1	220	32·8	34·65	214	143
D Kingstown (Harbour Office)	Office of Public Works	8	1 0	52	..	31·32	1·0	133
D Kingstown (Tivoli Terr. S.)	Capt. L. B. ered th	5	1 0	131	..	3·89	156	125
D Rathfarnham Castle	Rev. M. J. O'Reilly, S.J.	8	1 0	175	28·4	29·48	188	129
D Belgard Castle	Capt. A. F. Maude	5	1 6	400	27·2	29·01	176	137
D Rathmines (Neville Road)	T. H. Mason, Esq.	5	1 0	100	28·0	32·64	173	143
D Donnybrook (Anglesea Road)	F. C. D. Joynt, Esq.	5	1 0	30	27·9	31·68	179	122
d Clondalkin (Cheeverstown)	Miss M. Love	5	1 4	350	28·3	(28·66)	..	..
D Dublin (FitzWilliam Square)	Sir J. W. Moore, M.D.	8	1 6	54	27·4	27·26	193	121
D Dublin (Ringsend Pumpg. Stn.)	G. S. Harty, Esq., C.E.	10	1 1	25	26·3	27·27	187	127
D Dublin (Trinity College)	R. W. Ditchburn, Esq.	8	1 0	12	26·1	26·29	185	118
D Dublin (Phoenix Park)	Ordnance Survey Office	8	1 0	155	27·6	28·36	184	138
D Lucan (Peamount San.)	Medical Officer	5	5 9	366	27·2	28·52	196	141
D Clontarf (Pumping Station)	G. S. Harty, Esq., C.E.	5	1 0	5	24·4	26·52	173	123
D Glasnevin (Botanic Gdns.)	The Director	8	1 0	55	27·9	28·17	201	124
D Howth Castle	J. Gaisford St. Lawrence, Esq.	5	1 9	35	28·7	29·24	178	126
3.—NANNY, DELVIN & C. 142 sq. mi.								
D Malahide (Seamount)	J. G. Jameson, Esq.	5	1 0	150	28·0	32·33	179	138
Malahide (St. Andrews)	Ven. Archdeacon T. S. Lindsay*	5	1 3	100	·7·7	31·85	..	..
D Lusk (Nevitt)	W. Monks, Esq.	5	1 0	139	29 2	29·30	212	131
D Skerries (Milverton Hall)	Capt. E. G. Woods	5	1 0	190	28·0	30·21	180	137
D Balbriggan (Ardgillan)	No. 1 Capt. E. R. Taylor	5	1 0	210	29·0	30·07	189	142
4.—INSULAR. 1 sq. mi.								
D Lambay Island	Lord Revelstoke	5	1 0	20	27·4	29·00	161	129
MEATH. (Area, 909 sq. mi.)								
1.—SHANNON—Left Bank Tributaries. 32 sq. mi.								
2.—LIFFEY & C. 72 sq. mi.								
D Dunboyne (Stirling, Clonee)	Mr. J. Pilkington	8	1	231	33·3	30·30	189	153
3.—NANNY, DELVIN & C. 150 sq. mi.								
4.—BOYNE. 560 sq. mi.								
D Summerhill House	Mr. W. Lauder	5	1 0	372	33·7	33·46	195	145
D Dunsany Castle Gardens	Mr. J. B. Pow	5	1 0	323	33·8	34·30	187	153
D Athboy (Frankville)	Mrs. C. P. Coghill	8	1 3	227	35·5	42·40	196	184
D Beauparc (St. Cloud)	W. J. Hopkins, Esq.	5	1 0	215	31·5	31·51	189	147
D Kells (Headfort)	The Marquis of Headfort	8	0 8	227	37·0	36·94	198	156
5.—DUNDALK BAY. 95 sq. mi.								

‡ Gauge o erexposed.

* *Per* Irish Rainfall Association.

DIVISION XXI.—LEINSTER—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
WESTMEATH. (Area, 712 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
1.—SHANNON—Left Bank Tributaries. 517 sq. mi.								
D Athlone	Office of Public Works	5	1 0	132	28·2	32·39?	188	153
Athlone (Twyford House)	J. P. Hodson, Esq.*	5	1 0	187	37·0	38·04	199	..
D Streamstown (Windmill)	H. A. S. Upton, Esq.	5	1 6	..	34·5	35·47	..	..
D Moate (Coolatore)	H. A. S. Upton, Esq.	5	1 6	369	36·0	34·62	227	165
D Mullingar (Belvedere House)	Mr. J. Bayliss	5	1 0	367	36·3	36·06	190	152
D Mullingar (Ballynegall Gardens)	Major Hawkesworth Smyth	5	1 3	340	39·0	42·00	175	165
D Rathowen (Cromlyn)	(R)Maj.-Gen.T.P.Battersby,C.B.	8	1 6	298	36·1	37·85	213	162
D Castlepollard (Pakenham Hall)	The Earl of Longford	5	3 0	..	36·6	39·41	225	162
2.—BOYNE. 195 sq. mi.								
LOUTH. (Area, 316 sq. mi.)								
1.—BOYNE. 32 sq. mi.								
2.—DUNDALK BAY & C. 264 sq. mi.								
D Dundalk Rectory	Rev. T. F. Campbell	5	1 0	10	30·8	35·45	205	143
Dundalk (Ballymacallet Mt.)	M. Sellars, Esq., C.E.	5	2 3	670	41·5	45·38	..	..
D Dundalk (Aughneskea Res.)	M. Sellars, Esq., C.E.	5	1 3	207	38·3	42·12	185	154
3.—CARLINGFORD LOUGH. 20 sq. mi.								
D Greenore	S. Wilson, Esq.	5	1 0	20	31·9	31·58	176	138
LONGFORD. (Area, 424 sq. mi.)								
1.—ERNE. 61 sq. mi.								
d Granard	Shannon Power Dvlopmt.	5	1 9	..	..	40·76	..	..
2.—SHANNON—Left Bank Tributaries. 363 sq. mi.								
D Ballymahon (New Castle)	Col. W. A. King-Harman	5	1 0	200	36·7	37·02	215	163
d Keenagh	Shannon Power Dvlopmt.	5	1 6	..	..	(38·00)	..	..
Longford (The Rectory)	Rev. H. Justice	5	1 0	185	37·8	40·43	212	165
D Cloondrah	Office of Public Works	5	1 0	132	31·5	34·68?	230	147
D Castle Forbes Gardens	The Earl of Granard	8	1 0	161	37·6	40·76	211	156

DIVISION XXII.—CONNAUGHT.

GALWAY. (Area, 2377 sq. mi.)								
1.—ERIFF & C. 141 sq. mi.								
2.—GALWAY BAY NORTH. 277 sq. mi.								
3.—CORRIB. 846 sq. mi.								
D Galway (Grammar School)	The Headmaster	5	1 0	50	41·1	42·60	260	179
D Ballynahinch Castle	H.H. Maharaja of Nawanagar	5	1 9	41	61·0	70·61	245	219
Tuam (Gardenfield)	R. J. Kirwan, Esq., C.E.	5	1 0	155	44·1	(41·12)	..	..
D Portumna	Shannon Power Dvlopmt.	5	2 2	..	..	33·51	173	135
4.—GALWAY BAY, SOUTH. 281 sq. mi.								

* *Per* Irish Rainfall Association.

DIVISION XXII.—CONNAUGHT—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in or more.
GALWAY—(*con.*)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
5.—SHANNON—Right Bank Tributaries. 803 sq. mi.								
Killimor (Ramore)	Miss N. MacDermott	5	1 0	220	36·5	38·47	162	140
D Ballinasloe B.N.S.	Shannon Power Dvlopmt..	5	..	150	36·7	35·83	205	148
D Ahascragh (Clonbrock) (*new g*)	The Hon Miss Dillon	5	1 0	198	41·6	40·37	174	153
D Mt. Bellew B.N.S.	Shannon Power Dvlopmt..	5	1 8	200	..	42·52	199	164
6.—INSULAR. 29 sq. mi.								
ROSCOMMON. (Area, 961 sq. mi.)								
1.—SLIGO BAY. 6 sq. mi.								
2.—MOY. 11 sq. mi.								
3.—CORRIB. 16 sq. mi.								
4.—SHANNON—Right Bank Tributaries. 928 sq. mi.								
d Ballymacurly (Highlake)	Shannon Power Dvlopmt..	5	1 9	350	..	40·11	..	..
Roscommon	Shannon Power Dvlopmt..	..	..	..	..	35·00	..	..
d Lanesborough	Shannon Power Dvlopmt..	5	..	140	..	36·34	..	..
D Strokestown (Castlenode)	W. J. Walpole, Fsq.	5	1 0	160	35·0	37·38	191	160
d Tulsk	Shannon Power Dvlopmt..	5	2 0	250	..	40·18	..	156
D Boyle	Shannon Power Dvlopmt..	5	1 0	200	..	37·42	191	162
d Keadew	Shannon Power Dvlopmt..	5	3 0	170	..	37·06	..	..
MAYO. (Area, 2149 sq. mi.)								
1.—SLIGO BAY. 10 sq. mi.								
2.—MOY & C. 797 sq. mi.								
D Castlebar Rectory	Rev. J. Jackson	5	1 0	145	50·0	49·91	252	197
3.—BLACKSOD BAY & C. 411 sq. mi.								
D Blacksod Point	Meteorological Office	8	1 0	10	49·7	55·08	233	188
4.—CLEW BAY. 254 sq. mi.								
D Westport House	The Marquess of Sligo	5	1 0	35	46·6	42·04	237	168
D Mallarany	M. C. Forbes, Esq..	5	1 0	120	59·8	65·89	236	209
5.—ERIFF & C. 121 sq. mi.								
D Aasleagh Rectory	Rev. F. T. Cockle	5	1 0	30	89·0	96·28	245	223
D Aasleagh House	The Marquess of Sligo	5	1 0	30	87·0	101·71	243	217
D Delphi Lodge	The Marquess of Sligo	5	1 0	110	99·0	102·80	254	226
6.—CORRIB. 432 sq. mi.								
D Tourmakeady (Drimbawn Ho.)	Capt. E. G. Woods	5	1 0	100	54·0	56·09	222	166
7.—SHANNON—Right Bank Tributaries. 35 sq. mi.								
8.—INSULAR. 89 sq. mi.								
SLIGO. (Area, 716 sq. mi.)								
1.—DROWES & C. 49 sq. mi.								

DIVISION XXII.—CONNAUGHT—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with .01 in. or more.	Days with .04 in. or more.
SLIGO—(*con.*)		*in.*	*ft. in*	*ft.*	*in.*	*in.*		
2.—SLIGO BAY. 444 sq. mi.								
D Collooney (Markree Obsy.)	J. R. Armstrong, Esq.	5	1 0	122	43·5	44·86	230	182
D Sligo (Ard-na-veagh)	R. J. Kirwan, Esq., C.E.	5	1 0	90	41·5	43·22	236	179
3.—MOY & C. 166 sq. mi.								
4.—SHANNON—Right Bank Tributaries. 56 sq. mi.								
5.—INSULAR.—1 sq. mi.								
LEITRIM. (Area, 615 sq. mi.)								
1.—ERNE. 152 sq. mi.								
2.—DROWES & C. 85 sq. mi.								
3.—SLIGO BAY. 135 sq. mi.								
4.—SHANNON—Right Bank Tributaries. 47 sq. mi.								
D Drumkeeran (Leckawn)	Shannon Power Dvlopmt.	5	1 5	350	52·0	56·86	194	183
5.—SHANNON—Left Bank Tributaries. 196 sq. mi.								
D Ruskey	Office of Public Works	5	1 0	141	31·3	(37·52)	212	195
D Drumshanbo(LoughAllenSluice)	Office of Public Works	5	1 0	169	36·6	34·08?	226	143

DIVISION XXIII.—ULSTER.

CAVAN. (Area, 753 sq. mi.)								
1.—ERNE. 489 sq. mi.								
D Crossdoney (Kevit Castle)	F. P. Smith, Esq.	5	1 0	211	35·5	42·69	208	171
d Killeshandra (Castle Hamilton)	Major W. J. Hamilton	5	1 0	300	36·4	38·98	..	119
D Belturbet (Cloverhill)	Miss M. L. Gee	5	1 0	202	34·6	36·32	230	160
2.—SHANNON—Right Bank Tributaries. 34 sq. mi.								
d Glangevlin	Shannon Power Dvlopmt.		1 10	600	60·0	53·60	..	..
3.—SHANNON—Left Bank Tributaries. 91 sq. mi.								
4.—BOYNE. 122 sq. mi.								
5.—DUNDALK BAY. 17 sq. mi.								
FERMANAGH. (Area, 713 sq. mi.)								
1.—ERNE. 667 sq. mi.								
D Newtownbutler (Crom Castle)	G. R. J. Corbett, Esq.	5	1 1	200	..	40·68	230	165
D Enniskillen (Castle Coole)	Lady Dorothy Lowry-Corry	5	1 0	240	41·0	39·04	252	166
Enniskillen (Technical School)	J. W. Mansfield, Esq.	5	0 10	165	..	38·06	..	..
d Enniskillen (Portora School)	H. S. Scales, Esq.	5	1 0	251	40·3	37·80	..	..
d Belleek (Heronshaw)	T. Beacom, Esq.	5	1 2	150	45·5	41·51	..	177
2.—DROWES & C. 46 sq. mi.								
MONAGHAN. (Area, 498 sq. mi.)								
1.—ERNE. 208 sq. mi.								
2.—DUNDALK BAY. 132 sq. mi.								

DIVISION XXIII.—ULSTER—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
MONAGHAN—(*con.*)		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
3.—BANN—Lough Neagh, West. 158 sq. mi.								
D Monaghan (Workhouse)	Dr. J. Campbell Hall	5	1 0	240	31·4	43·27	232	170
ARMAGH (Area, 514 sq. mi.)								
1.—DUNDALK BAY. 118 sq. mi.								
Crossmaglen (Anamar)	P. Norris, Esq.	5	1 1	384	36·2	39·86	190	155
2.—CARLINGFORD LOUGH. 23 sq. mi.								
D Bessbrook (The Woodhouse)	J. S. W. Richardson, Esq.	5	1 0	260	37·2	41·80	219	162
3.—BANN—Lough Neagh, East. 37 sq. mi.								
D Lurgan (Belle Vue) *old g*	S. A. Bell, Esq., J.P.	5	0 5	200	29·7	30·22	191	146
D Lurgan (Belle Vue) *new g*	S. A. Bell, Esq., J.P.	5	1 0	200	..	29·95	193	146
4.—BANN, UPPER. 144 sq. mi.								
5.—BANN—Lough Neagh, West. 192 sq. mi.								
D Armagh Observatory .... (+A)	The Meteorological Office..	8	1 0	204	31·7	33·74	207	148
Richhill (Sandymount)	Mrs. C. B. Lamb	5	1 6	200	29·3	32·42	..	..
DOWN. (Area, 961 sq. mi.)								
1.—CARLINGFORD LOUGH. 104 sq. mi.								
D Newry (Bridge Street House)	C. Blaney, Esq.	5	1 0	23	38·1	40·53	172	147
2.—DUNDRUM BAY & C. 173 sq. mi.								
D Annalong (Belfast W.W.)	C. F. Wheeler, Esq., C.E. ..	5	2 9	435	47·5	48·87	215	158
D Mourne Mount'ns (Fofanny Res.)	J. H. H. Swiney, Esq., C.E..	5	1 0	938	64·4	76·80	177	169
D Seaforde	T. W. Forde, Esq.	8	0 5	180	38·3	40·90	209	170
3.—STRANGFORD LOUGH. 260 sq. mi.								
D Saintfield House	Rev. E. H. Blackwood Price	5	0 9	300	34·9	35·47	232	154
4.—COAST STREAMS. 47 sq. mi.								
D Donaghadee (Coastguard Stat.)	The Meteorological Office..	8	1 0	40	31·3	35·42	210	144
D Donaghadee (Craigmore)	Dr. S. B. Coates	5	1 0	60	30·6	33·96	203	138
5.—BELFAST LOUGH. 206 sq. mi.								
D Waringstown (The Forge)	W. J. Gibson, Esq.	5	1 0	187	32·2	30·77	210	158
Bangor (Chorlton)	C. T. Ingold, Esq.	7	1 6	60	33·2	35·24	..	..
6.—BANN—Lough Neagh, East. 7 sq. mi.								
7.—BANN, UPPER. 162 sq. mi.								
Banbridge (Observatory)	H. D. Fleming, Esq.	5	1 6	210	32·1	30·48	197	146
D Banbridge (Milltown)	J. E. Kennedy Esq.	5	1 0	200	31·0	28·59	202	137
D Portadown (Moyallon House)	Mr. J. Lynas	5	0 7	130	32·6	29·68	203	149
8.—INSULAR. 2 sq. mi.								

DIVISION XXIII.—ULSTER—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	Days with ·01 in. or more.	Days with ·04 in. or more.
ANTRIM. (Area, 1193 sq. mi.)		*in.*	*ft. in.*	*ft.*	*in.*	*in*		
1.—BELFAST LOUGH. 107 sq. mi.								
D Lisburn (Friend's School)	J. Woolman, Esq.	8	1 6	208	35·0	34·38	204	150
D Lambeg (Glenmore House)	Linen Industry Res. Assn.	8	0 11	100	..	36·06	187	163
D Dunmurry (Warren House)	Col. H. R. Charley	5	0 10	110	..	37·48	214	152
D Belfast (Queen's University)	J. A. Badger, Esq.	5	1 0	62	34·6	36·75	204	152
D Belfast (Royal Acad. Inst.)	J. W. Darbyshire, Esq.	5	1 0	13	..	38·47	198	162
Belfast (Sewage Works)	R. B. Donald, Esq., C.E.	8	1 0	26	35·8	35·48	..	..
D Belfast (Cave Hill Road)	Miss C. Firth	5	1 0	200	40·2	42·37	238	175
D Belfast (Oldpark Filters) *old g*	C. F. Wheeler, Esq., C.E.	5	3 6	203	38·3	41·48	195	161
D Belfast (Oldpark Filters) *new g*	C. F. Wheeler, Esq., C.E.	5	1 0	203	..	43·76	192	168
D Whiteabbey (Knockinagh)	H. Chisholm, Esq.	5	1 0	200	36.5	41·97	217	171
D Carrickfergus (Dorisland) *old g.*	C. F. Wheeler, Esq., C.E.	5	3 7	250	37·7	35·98	183	153
D Carrickfergus (Dorisland) *new g.*	C. F. Wheeler, Esq., C.E.	5	1 0	250	..	37·94	194	161
D Carrickfergus (S. Woodburn) *old g.*	C. F. Wheeler, Esq., C.E.	5	3 0	640	41·9	44·05	205	177
D Carrickfergus (S. Woodburn) *new g.*	C. F. Wheeler, Esq., C.E.	5	1 0	640	..	45·14	202	171
D Carrickfergus (N. Woodburn), *old g.*	C. F. Wheeler, Esq. C.E.	5	3 0	737	45·4	43·61	206	174
D Carrickfergus (N. Woodburn) *new g.*	C. F. Wheeler, Esq., C.E.	5	1 0	735	..	45·58	205	177
D Carrickfergus (Copeland) *old g.*	C. F. Wheeler, Esq., C.E.	5	3 0	424	37·7	38·42	209	168
D Carrickfergus (Copeland) *new g.*	C. F. Wheeler, Esq., C.E.	5	1 0	427	..	41·57	222	176
D Carrickfergus (L. Mourne) *old g.*	C. F. Wheeler, Esq., C.E.	5	3 0	596	42·0	41·31	210	161
D Carrickfergus (L. Mourne) *new g.*	C. F. Wheeler, Esq., C.E.	5	1 0	596	..	43·82	213	170
2.—GLENARM & C. 186 sq. mi.								
D Larne (Sallagh Springs)	J. H. H. Swiney, Esq., C.E.	5	1 0	566	50·0	51·66	207	187
D Glenarm Castle	Mr. T. Daly	5	1 4	30	44·6	47·41	206	186
3.—BUSH & C. 193 sq. mi.								
D Ballycastle (Magherintemple)	Capt. J. Casement, D.S.O.	5	1 0	230	42·6	41·89	213	174
D Ballycastle (Sheskburn)	Rev. E. F. Campbell	5	0 11	10	41·0	42·03	238	178
4.—BANN, LOWER. 112 sq. mi.								
5.—BANN—Lough Neagh, East. 590 sq. mi.								
D Stoneyford (Belfast W.W.) *old g.*	C. F. Wheeler, Esq., C.E.	5	1 6	450	35·7	35·16	185	149
D Stoneyford (Belfast W.W.) *new g.*	C. F. Wheeler, Esq., C.E.	5	1 0	453	..	38·58	184	165
D Aldergrove Aerodrome (+ A)	The Meteorological Office	8	1 0	238	34·0	36·84	209	156
D Randalstown (Hollybrook)	N. F. Webb, Esq.	5	1 0	120	..	38·35	204	164
D Ballymena (Harryville)	J. R. Williams, Esq.	5	1 5	150	41·5	43·43	219	184
D Broughshane (Tullymore Sch.)	E. W. Thomson, Esq.	5	1 2	218	41.0	41·16	200	163
D Broughshane (Quolie)	H. O'Hara, Esq., C.E.	5	1 3	864	47·3	44·87	232	193
6.—INSULAR. 5 sq. mi.								
LONDONDERRY. (Area, 816 sq. mi.)								
1.—LOUGH SWILLY. 6 sq. mi.								
D Londonderry (Dunruadh)	J. H. Welch, Esq.	5	1 0	150	40·5	40·06	242	189
2.—BUSH & C. 9 sq. mi.								
3.—BANN, LOWER. 240 sq. mi.								
D Coleraine (Cutts House)	Maxwell Given, Esq., C.E.	8	1 0	20	39·6	40·23	221	176
4.—BANN—Lough Neagh West. 196 sq. mi.								

DIVISION XXIII.—ULSTER—(*con.*).

STATIONS.	AUTHORITIES.	Rain-gauge Diam.	Height of Rim above Ground.	Height of Ground above Sea Level.	Average Rainfall.	1929 Rainfall.	1929 Days with ·01 in. or more.	1929 Days with ·04 in. or more.
5.—FOYLE & C. 365 sq. mi.		*in.*	*ft. in.*	*ft.*	*in.*	*in.*		
M Glenedra (Spelhoagh Mountain)	W. Criswell, Esq., C.E.	5	1 0	1333	60·0	66·15	..	..
D Glenedra Hill	W. Criswell, Esq., C.E.	5	1 0	1333	62·5	69·27	229	210
D Glenedra Lodge (+A)	W. Criswell, Esq., C.E.	5	1 0	950	55·6	60·63	229	197
‡M Glenedra (Altagarran Mountain)	W. Criswell. Esq., C.E.	5	1 0	1230	..	59·05	..	..
D Londonderry (Creggan Res.)	Mr. W. Hutchinson	8	1 0	325	41·8	43·55	276	211
D Limavady (Roevista Manse)	Rev. W. Browne	5	1 0	70	37·0	34·66	199	160
Limavady (Drenagh)	M. M. McCausland, Esq.	5	1 6	80	37·0	35·43	228	..
Bellarena	Sir F. G. Heygate, Bt.	5	2 6	12	38·4	36·88	216	179
TYRONE. (Area, 1257 sq. mi.)								
1.—ERNE. 46 sq. mi.								
2.—BANN—Lough Neagh, West. 442 sq. mi.								
D Dungannon (Aloha)	Major R. Stevenson	5	1 0	275	37·2	43·55	217	175
D Castlecaulfield (Parkanaur)	Y. A. Burges, Esq.	8	4 6	250	..	43·39	226	166
D Donaghmore	D. Brown, Esq.	5	1 3	260	40·0	46·61	184	166
3.—FOYLE. 769 sq. mi.								
D Omagh (Edenfel)	Lt.-Col. J. B. Buchanan	8	1 0	280	40·1	41·66	239	183
D Newtown Stewart (Barons Ct.)	Robert Bell, Esq.	5	1 0	250	43·0	43·37	237	171
D Sion Mills (Sion House)	Capt. J. C. Herdman	5	1 0	100	39·0	42·80	231	175
DONEGAL. (Area, 1875 sq. mi.)								
1.—DONAGH & C. 146 sq. mi.								
D Malin Head	The Meteorological Office.	8	1 3	51	..	36·34	226	175
2.—LOUGH SWILLY. 273 sq. mi.								
D Rathmullen (Fort Royal)	Col. J. H. Jellett	5	1 4	35	42.5	40·10	257	190
D Buncrana Rectory	Rev. R. P. Meredith	5	0 8	50	..	42·65	231	183
3.—SHEEPHAVEN & C. 307 sq. mi.								
D Milford (The Manse)	Rev. W. J. Young	5	1 3	150	42·0	40·79	239	195
D Dunfanaghy (St. Patrick's)	W. T. Arnold, Esq.	..	..	..	43·0	40·03	248	195
4.—GWEEBARRA & C. 341 sq. mi.								
5.—DONEGAL BAY. 322 sq. mi.								
D Killybegs (Rockmount)	Com. G. G. Philipps, R.N.	5	1 0	65	60·5	58·03	232	194
6.—ERNE.—68 sq. mi.								
7.—DROWES & C. 10 sq. mi.								
8.—FOYLE. 396 sq. mi.								
9.—INSULAR. 12 sq. mi.								

‡ Gauge overexposed on moor.

BRITISH RAINFALL,

1929.

PART IV.

SOME REMARKABLE FEATURES OF THE RAINFALL OF 1929.

By JOHN GLASSPOOLE, M.Sc., Ph.D.

Although the annual rainfall in most parts of the British Isles approximated fairly closely to the average, the incidence of the rainfall throughout the year was from many aspects unprecedented. While certain features have already been emphasized in the sections of Part II, which appear year by year in these volumes, there are, however, certain aspects which cannot be discussed readily under these headings. This article deals with those points.

(*a*) *Rainfall October to December,* 1929, *as percentage of the total for the year.*

Fig. 1.

It has already been pointed out in Section 8 that the total rainfall during the three months October to December, 1929, exceeded that of the other 9 months over the British Isles as a whole. For a number of representative stations, the rainfall of these three months has been expressed as a percentage of the total for the year. The variation in the percentage values over the British Isles is shown in Fig. 1. It will be seen that more than half the total rainfall for the year occurred in these three months practically everywhere in England and Wales, except the north-east, over much of the Southern Uplands and Western Highlands of Scotland and near Killarney in Co. Kerry. More than two-thirds of the total rainfall fell in the last three months of the year in parts of the south of England, *e.g.*, in parts of Hampshire and Berkshire. In these districts the rainfall of the last three months of the year was more than twice that of the whole of the first nine months of the year.

Fig. 2.

The comparison is even more striking when Fig. 1 is compared with Fig. 2. Fig. 2 shows the fall from October to December as a percentage of that of the year, on the average of the standard period 1881 to 1915. While these three months are wetter than any other three months in most parts of the British Isles, the values exceed 35 per cent. only in the south of England. The remarkable variations during 1929 are further demonstrated by the following details of the actual rainfall amounts for a few widely distributed stations.

TABLE I.—*Comparison of rainfall January to September and October to December*, 1929.

Station.	County.	Rainfall. 1929.		
		Jan.–Sept.	Oct.–Dec.	Oct.–Dec.
		in.	in.	Percentage of year.
Upton	Berks	6·86	15·06	69
Selborne	Hants	12·21	26·35	68
Oxford	Oxford ..	7·64	14·75	66
Ross	Hereford ..	10·31	19·90	66
Dorchester ..	Dorset ..	11·94	23·00	66
Ashburton ..	Devon ..	27·52	54·41	66
Tunbridge Wells	Kent	10·93	20·17	65
Berkhamsted ..	Herts	9·91	18·30	65
Blockley	Worcester ..	10·61	19·32	65
Heathfield ..	Sussex ..	13·53	23·72	64
Kentchurch Rec.	Hereford ..	14·83	25·71	63
Lampeter ..	Cardigan ..	19·25	32·81	63
Birmingham W. W	Radnor ..	22·73	38·90	63
Reigate	Surrey ..	11·65	18·99	62
Slough	Berks	8·42	13·71	62
Launceston ..	Devon ..	18·70	30·82	62
Mickleton ..	Gloster ..	9·52	15·83	62
Treherbert ..	Glam	39·64	64·88	62

The rainfall of 6·86 inches, recorded during January to September 1929, at Upton, Berkshire, must be regarded as particularly striking, as less than one-third of the average annual rainfall has occurred but rarely anywhere during any nine months of the last 60 years. The average annual rainfall at Upton is about 25 inches.

(*b*) *March and November*, 1929.

The records covering the last 60 years have been examined for 40 well distributed stations. The year of the driest March and of the

wettest November for these stations is indicated in Figs. 3 and 4. At 17 out of the 40 stations, representing over 40 per cent. of the total area of the British Isles, March, 1929, was the driest March, and at three stations the driest month of any name on record. At 11 stations November, 1929, was the wettest November and at three stations the wettest month of any name in the last 60 years.

TABLE IIA.—*List of stations where March, 1929, was the driest March on record.*

Station.	County.	Rainfall.	
		March, 1929.	Amount in previous driest March.
	England and Wales.	in.	in.
Camden Square	London	·01*	·30
Tenterden	Kent	·04	·30
Ventnor	Hants	·25	·35
Oxford	Oxford	·04	·17
Wellingborough	Northants ..	·04	·15
Wolstaston	Shropshire ..	·33	·68
Mickleover	Derby	·25	·49
Hull	Yorks, E.R. ..	·12	·43
Llandudno	Carnarvon ..	·17	·74
	Scotland.		
Marchmont	Berwick	·17*	·90
Aberdeen	Aberdeen ..	·22*	·43
Ardross Castle	Ross & C. ..	·61	·70
	Ireland.		
Dublin	Dublin	·22	·49
Markree Observatory ..	Sligo	·51	·80
Belturbet..	Cavan	·55	·67
Seaforde	Down	·62	·71
Omagh	Tyrone	·48	·76

* Smallest total recorded in any month at that station 1870-1929. At Camden Square ·01 in. also fell in February, 1891.

TABLE IIB.—*List of stations where November, 1929, was the wettest November on record.*

Station.	County.	Rainfall.	
		November, 1929.	Amount in previous wettest November.
	England and Wales.	in.	in.
Camden Square	London	5·47	4·71
Oxford	Oxford	6·51	4·80
Wellingborough	Northants ..	5·00	4·40
Ashburton	Devon	19·58*	12·98
St. Austell	Cornwall ..	13·09*	9·74
Wolstaston	Shropshire ..	8·15	6·68
Mickleover	Derby	5·40	4·48
Seathwaite	Cumberland ..	29·60	28·47
Cardiff	Glamorgan ..	10·99	8·84
Haverfordwest	Pembroke ..	13·50*	11·94
	Ireland.		
Courtown House ..	Wexford	7·38	7·22

* Largest total recorded in any month at that station, 1870-1929.

Most stations had already experienced a dry March, so that the fall of March, 1929, was but little less than that of the previous driest March. At Marchmont, in Berwickshire, however, March, 1929, was 0·73 inch drier than any other March and the driest month in the series. At Llandudno, March, 1929, was 0·57 inch drier than any earlier March. It will be seen from Fig. 3 that 1929 gave the driest March at stations in the south-east and Midlands of England, in northern and central Wales, along the coast of England and Scotland from Hull to Fortrose and in the north-eastern half of Ireland. Elsewhere the driest March was often that of 1893, 1900 or 1925. On the other hand the rainfall of November, 1929, in certain districts was very much heavier than

that of any other November in the series. Thus at Ashburton, November, 1929, was 6·60 inches wetter than any earlier November, and at St. Austell, in Cornwall, 3·35 inches wetter. At stations in the south-west of England and Wales November, 1929, was the wettest month on record. Fig. 4 indicates that 1929 gave the wettest November at stations in the south-west of England and Wales and in the Midlands, as well as in the English Lake District and in Co. Wexford. Elsewhere the wettest November was often that of 1877, 1881, 1888 or 1890.

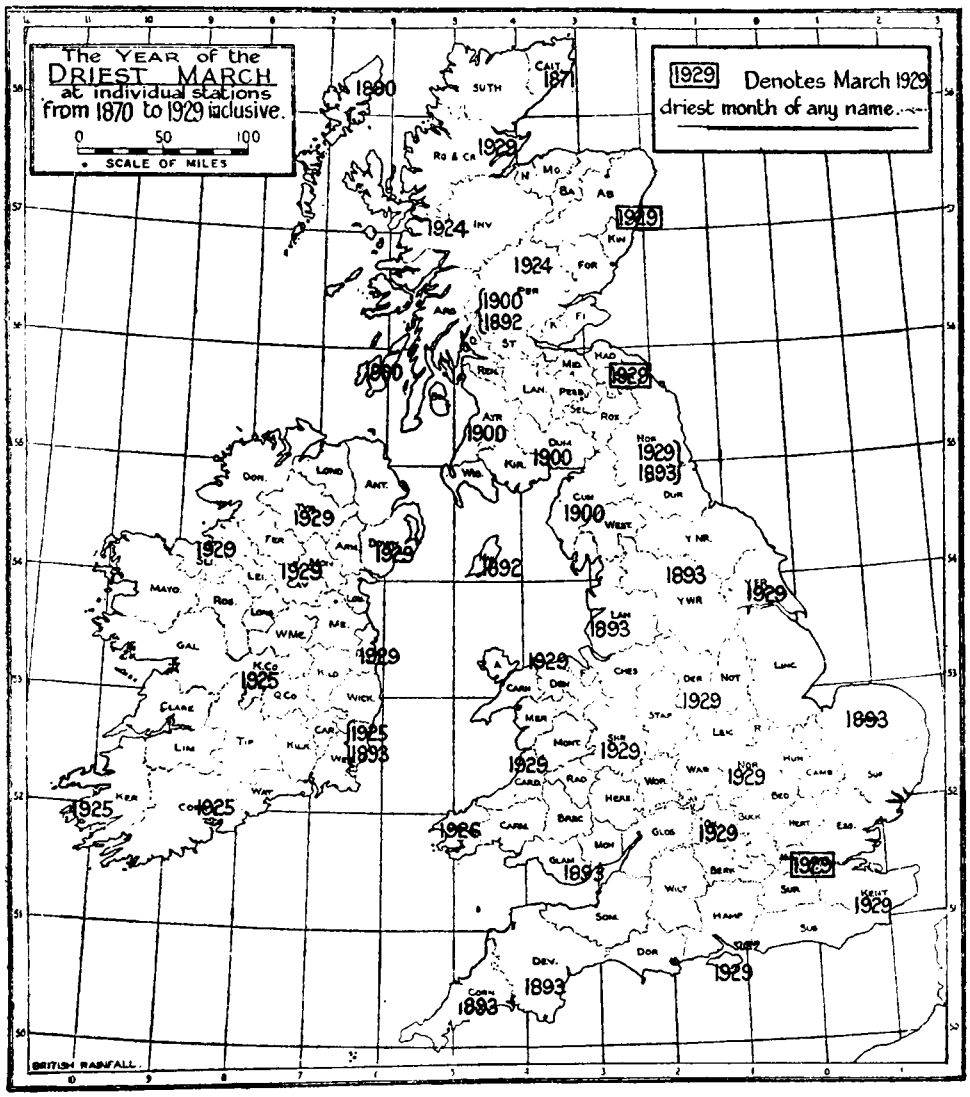


Fig. 3.

Mr. E. Nimmo has recently drawn my attention to the large falls of November, 1926, in parts of Dorset and Hampshire. Over appreciable areas in these counties November, 1926, was wetter than that of 1929, as was also the case at Wetherby, in Yorkshire, as shown on the map.

(c) *Driest and wettest consecutive months during* 1929, *compared with previous extreme values.*

The records of earlier years must form the basis of any computation of the probable future extremes of rainfall. In view of the abnormalities of the rainfall of 1929 it is interesting to compare that experienced

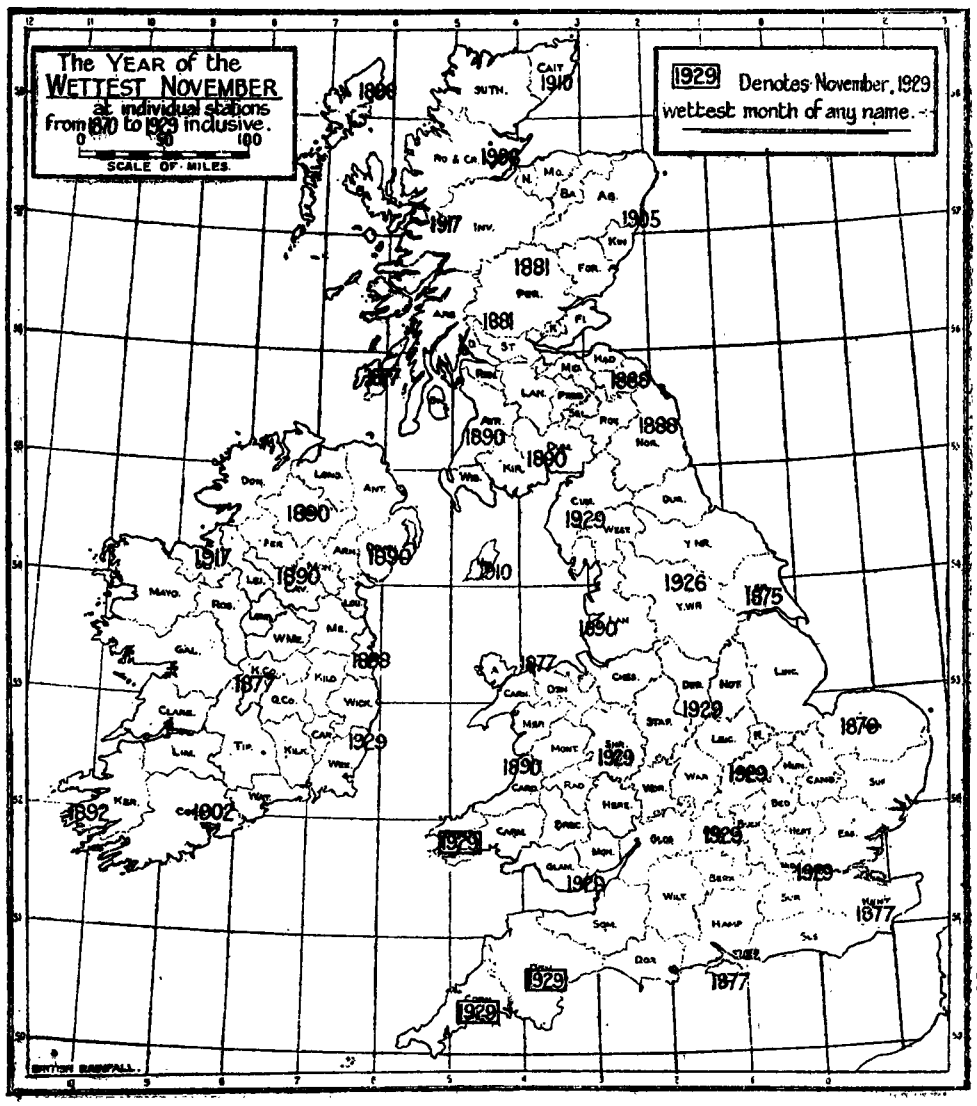


Fig. 4.

in consecutive 2, 3, 4, 5, 6, etc., months of 1929, with that of similar periods in the previous 59 years. Attention is confined to the monthly records of rainfall of the 40 representative stations already referred to, but the comparison in this case is not restricted to months of the same name.

As there were nine dry months and three wet months in 1929, periods longer than these need not be considered. The number of stations which gave monthly totals during 1929 which were unprecedented in the 60 years' observations are set out below :—

TABLE III.—*Number of stations with extremes in* 1929.

No. of stations.	District.	No. of consecutive months.											
		Dry periods.									Wet periods.		
		1	2	3	4	5	6	7	8	9	1	2	3
15	England	1	2	2	2	3	1	3	1	2	2	5	6
5	Wales	0	1	2	1	1	0	0	0	0	1	3	4
11	Scotland	2	0	1	1	1	1	1	0	0	1	1	3
9	Ireland	0	1	0	0	0	1	0	0	0	0	2	0
40	British Isles ..	3	4	5	4	5	4	4	1	2	4	11	13

Wet periods of two or three months' duration in 1929 were therefore most striking. Other groups of consecutive months gave extremes at about four out of the 40 stations. So far as can be ascertained there is no other year on record which has given extremes at so many stations both of deficiencies and excesses of rainfall.

We have now to consider whether the extremes recorded in 1929 differed appreciably from the earlier values. So far as dry periods were concerned the values recorded in 1929 were generally but little less than the previous smallest values. A comparison of the most striking differences is given below :—

At Ardross Castle (Ross and Cromarty) the driest periods in 1929 for 3, 4, 5, 6 and 7 consecutive months were 2·25, 4·14, 6·22, 7·90, 10·29 inches compared with 3·42, 5·14, 7·51, 10·29, 12·01 inches in the previous driest periods back to January, 1870.

At Mickleover (Derbyshire) the driest periods in 1929 for 2, 3, 4, 5 consecutive months were 0·55, 1·35, 2·65, 3·95 inches compared with 1·02, 3·34, 3·87, 4·76 inches in the previous driest periods back to January, 1870.

As regards wet periods the differences were again generally small but a few stations gave appreciably more in 1929 than in any other year. Some of the more striking values are set out below :—

Station.	County.	Number of consecutive months.					
		1		2		3	
		1929.	Previous wettest.	1929.	Previous wettest.	1929.	Previous wettest.
		in.	in.	in.	in.	in.	in.
Ashburton ..	Devon ..	19·58	16·92	34·10	29·87	42·59	37·67
St. Austell ..	Cornwall	13·09	12·56	22·46	20·73	31·16	26·93
Wolstaston ..	Shropshire	*	*	16·22	13·80	20·31	19·55
Cardiff ..	Glamorgan	*	*	19·38	16·27	25·70	21·71
Haverfordwest	Pembroke	13·50	12·31	26·03	19·54	32·99	26·58

* The fall of 1929 was exceeded in earlier years.

(*d*) *Records of* 10 *inches or more in the south-east of England during* 1929.

It is unusual for as much as 10 inches to be recorded in any month in the south-east of England (*i.e.*, the counties of London, Surrey, Kent, Sussex, Hampshire and Berkshire), but such falls occurred both in November and December, 1929. Falls of 10 inches were more widespread in November, occurring along the ridge of high ground including Crowborough Beacon, along the South Downs, over the high ground to the north of Petersfield and to the west of Southampton. In December only just more than 10 inches was recorded, *viz.*, in Ashdown Forest and to the south of Alton. A few stations recorded more than 10 inches in both months, *e.g.*, 10·29 and 10·14 inches at Forest Row (Charlwood Farm), 10·16 and 10·11 inches at West Tisted Manor and 10·55 and 10·13 inches at East Tisted (Rotherfield Park). Some of the largest falls in November, 1929, are set out below :—

	inches.
Hassocks (The Croft), Sussex	11·80
Crowborough (The Manse), Sussex	11·75
Ditchling (Neston), Sussex	11·35
Lyndhurst (Allum Green), Hampshire	11·20
Totton (Shorne Hill), Hampshire	11·20

There were 33 individual falls of 10 inches in November, 1929, and 5 in December, 1929. All the available records back to January, 1910, have been searched for other falls of 10 inches or more. Such falls appear to have been confined, in the counties under consideration, to the Decembers of 1914, 1911 and 1915, to November, 1926, and October, 1928, when the number of stations so affected were 141, 49, 24, 13 and 2 respectively.

Some of the largest falls recorded in one month are set out below :—

	inches.
Bepton (Linch Farm), Sussex, December, 1914 ..	13·27
East Tisted (Rotherfield Park), Hampshire, December, 1914	13·08
Petersfield (Weston), Hampshire, December, 1914 ..	13·01
Petersfield (Broadhanger), Hampshire, December, 1911	13·01

The rainfall of 1929 was remarkable in the south-east of England for giving (*a*) two consecutive months, *viz.*, November and December with more than 10 inches at a few stations, (*b*) for giving more falls of 10 inches than any other November in the last 20 years and (*c*) giving more falls of 10 inches than any other month in the last 20 years except the Decembers of 1914 and 1911.

The year 1929 will long be remembered for the remarkable variety of its weather, for the unprecedented drought of the first nine months and for the equally remarkable wet period during the last three months of the year.

AVERAGE ANNUAL RAINFALL OVER PEMBROKESHIRE.

By JOHN GLASSPOOLE, M.Sc., Ph.D.

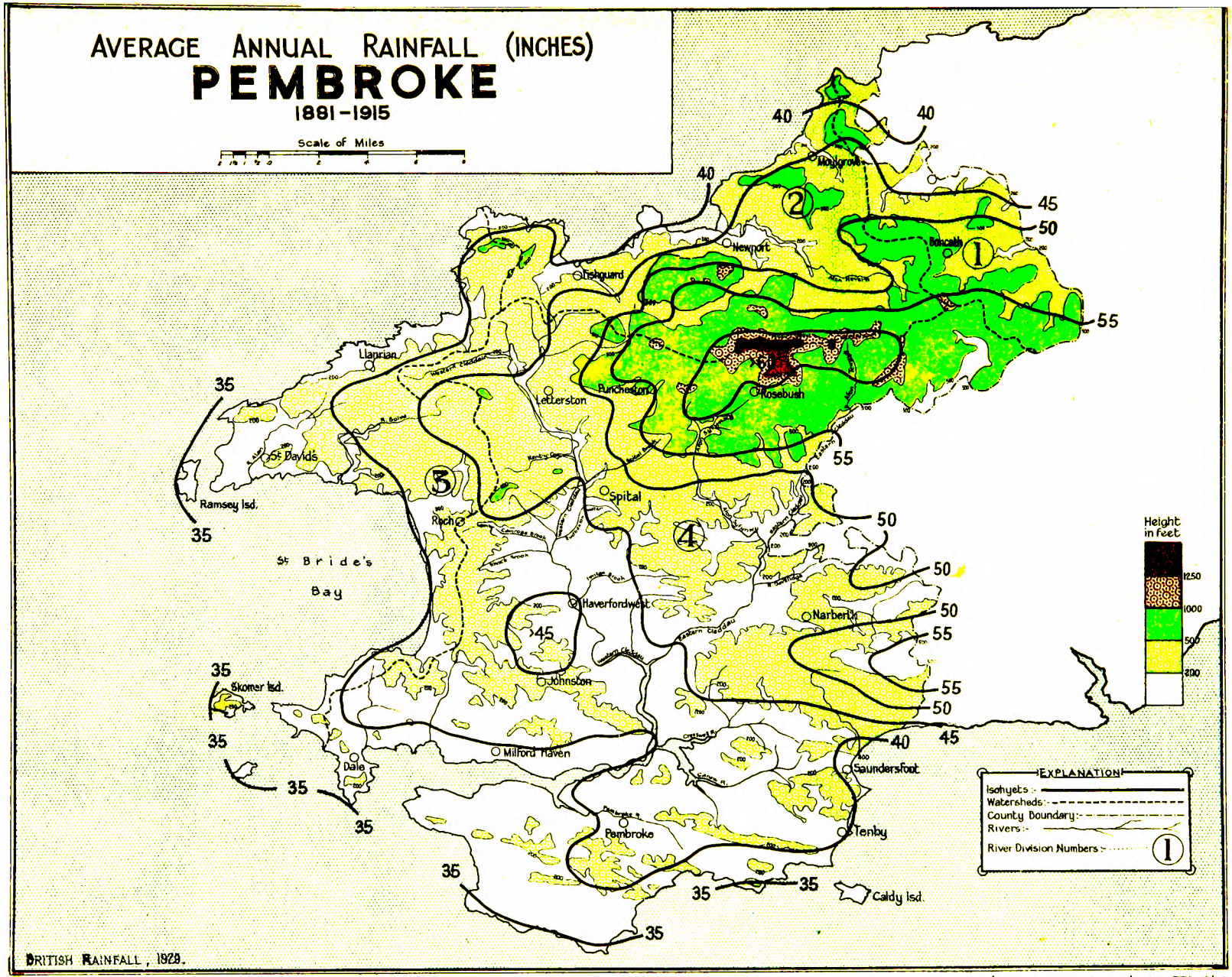
In British Rainfall, 1928, a map was given showing the distribution of the average annual rainfall over Norfolk and the method employed in its preparation was described in the accompanying article.*

The average rainfall over Norfolk is fairly uniform, varying only from about 22·5 inches to 28·5 inches, a range of only six inches. In Pembrokeshire the range is much greater, the average annual rainfall varying from 35 inches along the south and west coasts, to over 60 inches on the moors of Mynydd Prescelly. The effect of the orography on the rainfall is well marked in Pembrokeshire, as in other districts with the open sea to the windward side.

The details given on the map facing this page are similar to those for Norfolk. The isohyetal lines, as constructed from the available data, are shown by continuous lines for 35, 40, 45, 50, 55 and 60 inches. The county boundary is also shown, together with the watershed lines used in *British Rainfall* for the purpose of sub-dividing the counties. These divisions are drained by (1) The Teifi, (2) the Nevern and coast streams, (3) certain west coast streams and (4) the Cleddau and coast streams. The contour lines for 200, 500, 1,000 and 1,250 feet are shown, the areas at different elevations being indicated by different colours. Some of the larger towns are also marked.

Norfolk was selected for the purpose of the article in *British Rainfall* as a county with a large amount of rainfall data. In view of the small range in the rainfall over that county there was, moreover, little risk of making any appreciable error in the run of the isohyetal lines. For Pembroke there are rather less than half the number of records per square mile than in Norfolk and the range in actual inches, as already pointed out, is five times as large. In drawing the lines over Pembrokeshire reliance had to be placed on an accumulated knowledge of the general relationship of the average rainfall to the configuration of the land, and the lines are not likely therefore to define the actual average rainfall with the same precision as in the case of Norfolk. The distribution is, however, the most reliable which can be obtained from the available data and it will be interesting to see what modifications, if any, are required in the general run of the lines as additional records

* The map was included as the frontispiece of *British Rainfall*, 1928, and the method employed in its preparation was described in the article on *The Rainfall of Norfolk*, pp. 270–285.



BRITISH RAINFALL, 1928.

H.M. Stationery Office Press, Kingsway, W.C.2.

Ps.12983/2090. We.443.B. D.6027/2433. 750. 10/30.

become available. In this connection it should be pointed out that although the average used in the preparation of the map is for the 35 years, 1881 to 1915, it is quite practical to compute an average for a record which starts outside that period, by reference to the nearest overlapping record for which an average for that period is available. Thus an average can be computed for any future record which covers at least 3 to 5 years.

There are five long records in Pembrokeshire which have been used for the purpose of computing the average annual rainfall at the short period stations. These are at Stackpole Court, St. Ann's Head, Haverfordwest, St. David's and Castle Malywyn. The long record at Carmarthen was also used. The rainfall along the south and west coasts, which is the smallest in Pembrokeshire, is defined by records at Caldy Island, giving an average of 33·3 inches ; Manorbier Vicarage, 34·9 inches ; St. Ann's Head, 35·3 inches and St. David's 36·4 inches. Among the largest averages available for the purpose of constructing the map, the following may be mentioned : Henry's Moat, 62·8 inches ; Mynachlogddu School, 60·7 inches ; Cwm Cerwyn, 59·6 inches ; Rosebush, 58·5 inches ; Crunwere School, 56·1 inches ; Templeton, 54·2 inches ; Puncheston, 54·2 inches. The records at Cwm Cerwyn and Puncheston cover less than a year and additional observations in the moors of Mynydd Prescelly are particularly desirable.

EXPERIMENTS WITH RAIN-GAUGES WITH BLACK AND WHITE FUNNELS.

In August, 1926, the late Mr. Wilfred Irwin pointed out that he had found that on showery days with intermittent sunshine an ordinary gauge with a dark coloured funnel caught rather less rain than one painted white. The explanation suggested was that the white gauge remained cooler than the dark one, and consequently there was less evaporation of rain from the surface of the funnel. This fact and the explanation are not new, for Mr. G. J. Symons had arrived at similar conclusions more than 60 years ago.* There are, however, no recent observations on the subject made with modern gauges. Subsequently, Mr. Irwin made a series of daily observations at his home at Cockermouth, Cumberland, using standard Meteorological Office 5-inch gauges, one with an ordinary copper funnel and the other two with funnels painted black and white respectively. Similar comparative observations were undertaken by Mr. F. J. Parsons of The County Observatory, Ross-on-Wye.

In Dr. Mill's summary of the early experiments with gauges of various materials (*British Rainfall*, 1900, p. 25), the reasons are given for regarding copper as the most suitable substance. The statement is qualified, however, " some substances are now available which were unknown, or at least, not thought of, 40 years ago. Amongst these are . . . enamel paints." The opportunity was taken, in these recent experiments, of testing at the same time the merits of an enamel for the funnel of a rain-gauge.

It would be expected in experiments of this character, that any differences in the catches of the gauges attributable to differences of colour of the funnel would be small. In comparing critically the returns received annually from some 5,000 observers apparent inconsistencies are noticed, but these have in no case been attributable to the use of funnels which have been painted white, although occasionally, during the course of inspection duty, gauges have been noticed with funnels painted white. It can therefore be safely assumed that any differences due to the painting of the funnel white are on the average quite small. As already stated, any difference was likely to be largest on showery days, *i.e.*, days with little rain. In order to measure accurately these small amounts special measures were designed of small cross-section so that the amount of water could be measured to ·001 inch up to ·04 inch (or to ·01 mm. up to 1 mm.). Arrangements were also made so that the rain was collected directly in these measures. If these small measures became full the surplus was collected in the ordinary inner cans.

* See British Rainfall, 1866, p. 24.

The first experiments, covering about three months, at Cockermouth and Ross showed that the black gauge caught on the average 10·2 and 5·9 per cent. less than the white gauge at the two stations respectively. During this period there were a larger number of days than usual on which the rainfall was relatively small. At both stations

Cockermouth. (April to May, 1927.)			Ross-on-Wye. (March to June, 1927.)		
Standard gauge.	White funnel.	Black funnel.	Standard gauge.	White funnel.	Black funnel.
4·00 in. *100·0*	3·97 in. *99·2*	3·56 in. *89·0*	188·4 mm. *100·0*	187·3 mm. *99·4*	176·2 mm. *93·5*

The figures in italics in the tables denote the catch expressed as a percentage of that of standard gauge.

the white gauge agreed closely with the standard copper gauge. As was expected, the greatest relative differences were found on days of little rainfall. For example, at Cockermouth in April, 1927, there were thirteen days on which falls of less than ·04 inch (as measured by the black gauge) occurred. For those days the total catch in the black gauge was 0·169 inch and in the white gauge 0·300 inch. At Ross-on-Wye the total fall during March and April on days with less than 1 mm. of rain was 2·9 mm. in the black gauge and 4·4 mm. in the white gauge. It was, however, not altogether certain that these differences were due solely to colour. The inside and outside of the funnels of both gauges (excluding the rims) had been painted with porcelain enamels of the same make, but the finish of the black and white enamels was not identical. It was noticed that rain water collected in globules on the varnished surface in appreciable quantity, but more markedly on the black than on the white. Each funnel was therefore treated with a copal varnish and the following results were obtained :—

Cockermouth. (June to December, 1927.)			Ross-on-Wye. (July to November, 1927.)		
Standard gauge.	White funnel.	Black funnel.	Standard gauge.	White funnel.	Black funnel.
28·85 in. *100·0*	28·22 in. *97·8*	27·77 in. *96·3*	450·9 mm. *100·0*	434·9 mm. *96·4*	419·9 mm. *93·1*

The varnishing appears to have produced two distinct effects, (*a*) to reduce the differences between the black and white funnel, (*b*) to cause both gauges to retain less than the unpainted gauge. The record at Cockermouth ceased at the end of 1927 owing to Mr. Irwin's absence in Palestine and subsequent death. The observations at Ross were, however, continued. One of Mr. Irwin's last comments on the subject, written on the 5th November, 1927, should be recorded, since the investigations at Ross-on-Wye give a general support to this statement:— "My general conclusion is that with a season like last, a white gauge will record about 2 per cent. more than a black one. In the south of England, where the weather is warmer and sunnier, the difference would be greater."

On December 6th, 1927, the white funnel at Ross-on-Wye was interchanged with the black one, the outer cans, etc., remaining as before. The results until the end of June, 1928, were:—

ROSS-ON-WYE.

Period.	Standard gauge.	White funnel.	Black funnel.
Dec. 1927—June, 1928 ..	432·9 mm. *100·0*	419·9 mm. *98·0*	418·1 mm. *96·6*

On July 1st, 1928, the funnels were changed back to their original positions and the following results were obtained up to the end of April, 1929:—

ROSS-ON-WYE.

Period.	Standard gauge.	White funnel.	Black funnel.
July, 1928—April, 1929 ..	455·2 mm. *100·0*	443·6 mm. *97·3*	438·3 mm. *96·2*

There was no indication that the difference in the catch of the gauges with black and white funnels was a seasonal effect.

On May 1st, 1929, the positions of the gauge with the white funnel and the standard gauge were interchanged. Thereafter the gauge with the black funnel gave rather more than the gauge with the white funnel. The white funnel was repainted on August 29th, 1929, but its catch relative to the black gauge does not seem to have been

affected thereby. The results for May to February, 1930, are set out below :—

ROSS-ON-WYE.

Period.	Standard gauge.	White funnel.	Black funnel.
May—August, 1929 ..	163·5 mm. *100·0*	157·9 mm. *96·6*	158·9 mm. *97·2*
Sept., 1929—Feb., 1930 ..	712·5 mm. *100·0*	693·0 mm. *97·3*	702·8 mm. *98·7*

The catch of the black funnel has increased fairly steadily relatively to that of the standard gauge during the whole course of the observations. This is presumed to be due to the " ageing " of the surface of the black funnel whereby less rain is held up and evaporated.

SUMMARY OF RESULTS.

Before reviewing the results as a whole, it is advisable to recall the fact that the investigation was started in the expectation that a gauge with a white painted funnel would catch rather more than one with an ordinary copper funnel. The first point to emphasise is the fact that on the contrary the white painted funnel consistently caught from 3 to 4 per cent. *less* rain than the standard gauge. This result was not affected by interchanging the funnels and the result obtained may, therefore, be regarded as definitely established. There is little doubt that the loss was due to the retention of rain in the form of drops by the varnished surface and their subsequent evaporation. The loss due to this cause must have been sufficient to render inappreciable any effect due to the superior reflecting powers of a white enamelled surface.

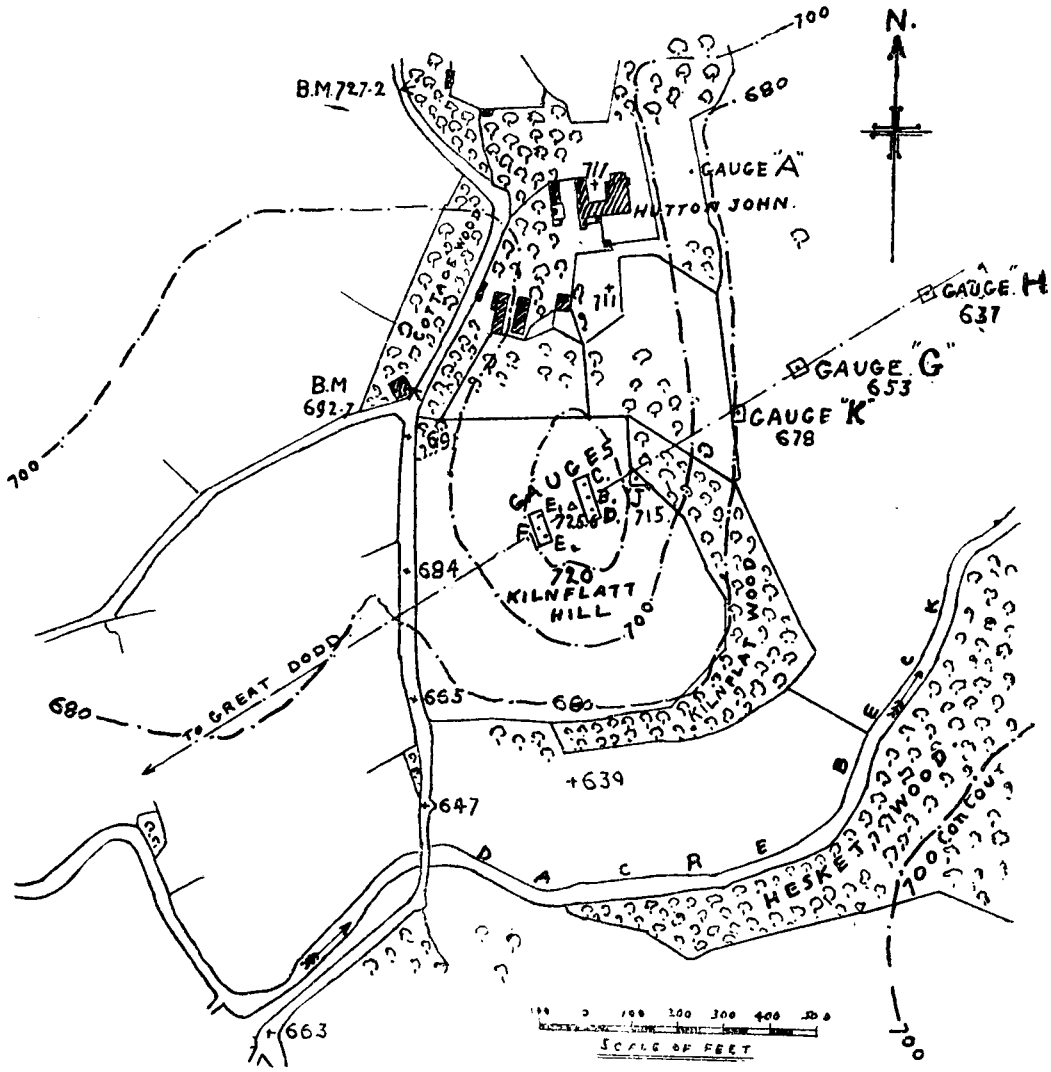
The early results obtained with the black funnel showed that the effect of the " finish " applied to the funnel of a rain-gauge may be much greater than is commonly realised. A loss of ten per cent. in the total catch is too serious to be regarded lightly. The subsequent results obtained at Ross-on-Wye showed that the relative catch with the black gauge improved with time—presumably as a result of some " ageing " process whereby the surface gradually approximated to that of copper oxidised by exposure. The loss was about four per cent. even after two years of exposure. The cheaper forms of rain-gauge listed by instrument makers and opticians are often made of japanned tin. It is true that this material was not directly tested in the investigation just described, but the results give rise to the suspicion that the japanned finish may in itself be responsible for appreciable errors in such gauges, at least during the first year or two of use. The most important conclusion from these experiments is that the funnel of the gauge should never be painted.

REPORT ON EXPERIMENTS WITH RAIN-GAUGE SHIELDS AND RAIN-GAUGES UNDER THE LEE OF A HIGH WOOD DURING THE PERIOD 1st MAY, 1929, TO 30th APRIL, 1930, AT HUTTON JOHN, PENRITH.

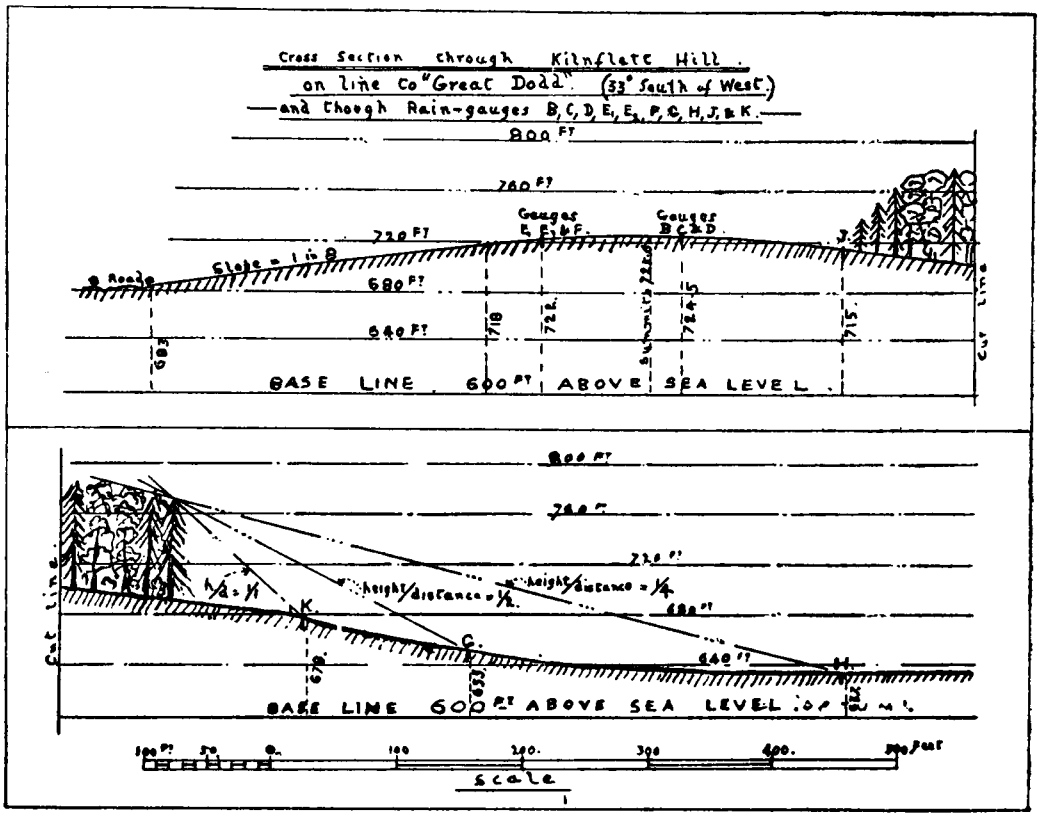
By F. Hudleston, M.Inst.C.E.

The experiments with shielded rain-gauges in exposed situations and other gauges under the lee of a high wood, of which detailed descriptions have appeared in *British Rainfall* for the three years 1926-27-28 have been continued for twelve consecutive months (1st May, 1929—30th April, 1930) and early in October the surroundings of two gauges—C and H were modified in the manner described below.

A contoured map showing the position and surroundings of all gauges and a cross section of the hill along the direction of the



Map showing contours in neighbourhood of Kilnflatt Hill, and positions of Rain-gauges.


Cross Section through Kilnflatt Hill
on line to "Great Dodd" (33° South of West)
and through Rain-gauges B, C, D, E, E, F, G, H, J, & K.
800 FT
760 FT
720 FT
680 FT
640 FT
Gauges E, E, & F.
Gauges B, C, & D.
Grass
Rocks
BASE LINE 600 FT ABOVE SEA LEVEL
height/distance = 1/4
height/distance = 1/4
BASE LINE 600 FT ABOVE SEA LEVEL
Scale

prevailing wind are given above. The ten experimental gauges are set up along this line.

Gauge A is the standard gauge at the old established site in the gardens to the east of Hutton John. It is 5 yards west of a retaining wall 7 ft. high, which divides the lower lying park land on the east from the gardens. Gauges B, C and D are shown in the eastern enclosure just east of the crest of Kilnflatt Hill. B is normally exposed, C from 1st May to 30th September, 1929, was surrounded by its old circular turf wall of 10 ft. diameter and 1 ft. high, but in the first week of October, 1929, this wall was raised until the crest of its crater was exactly level and 6 inches above the plane of the lip of the gauge. The inner face of the wall is almost vertical while the outer face is built at 1 vertical to 3 horizontal, and carefully sodded to make it a smooth grass slope. D has a similar turf wall 1 ft. 3 in. high. Gauges E_1, E_2 and F are in the western enclosure on the western side of the hill, the amount of the slope being 1 in 8 downwards to W.S.W. approximately; F is normally exposed and is placed 14 ft. in advance of gauges E_1 and E_2 to avoid possible disturbance from the turf walls surrounding those gauges. The crests of these two turf walls are in planes passing through the gauge lips, but the crest of the wall round E_1 is exactly level, while

that round E_2 is parallel to the sloping surface of the hillside, which is here merging into the rounded summit of the hill, so that the western edge of E_2's crater is $4\frac{1}{2}$ in. *lower* than the actual lip of the gauge while the eastern edge is $4\frac{1}{2}$ in. *above* it. Gauge J is close to the western side of the wood and is 10 ft. 6 in. lower than the top of the hill; K is on the eastern side of the wood where the ratio of shelter (*i.e.*, height/distance) is 1 to 1; G is placed to obtain a ratio of h/d=1 to 2, J, K and G are normally exposed while H which has a shelter ratio of 1 to 4 was a normally exposed gauge from 1st May to 30th September, 1929, but in the first week of October, 1929, a turf wall similar to the other turf walls but with its crater lip exactly level and in the plane of the lip of the gauge was put up round it with the intention of eliminating the turbulence which seemed to affect it in the winter 1928-9 when it was merely a normally exposed gauge in a comparatively open space. (*See* p. 263, *British Rainfall*, 1928.)

The *scale* of these ratios of shelter is large. The rounded top of the wood is about 785 ft. above sea level. K has $h/d=\frac{105\text{ ft.}}{105\text{ ft.}}$, G has $h/d=\frac{130\text{ ft.}}{260\text{ ft.}}$, while H has its $h/d=\frac{148\text{ ft.}}{590\text{ ft.}}$. The exact positions of gauges K, G and H were determined by a clinometer to give the fractional ratios we decided to adopt.

The check gauge A in the gardens has a shelter ratio of approximately 1 to 2 for all points between south and north-west.

Table I on page 291 summarises the catches of the twelve months in seven double lines (*a*) to (*g*). The top line in each case gives the catch of each gauge in inches while the italics of the lower line give that catch as a percentage of A's catch; they have a higher degree of accuracy than the catches printed in inches, since the original measurements were made to three places of decimals; the three lines (*h*) to (*k*) give corresponding figures for the previous 12 months, *i.e.*, May, 1928—April, 1929, for the purpose of comparison.

The five months May—September, 1929, in line (*a*) were uneventful, there was but little rain and the wind was never high when that rain was falling, but the seven months October, 1929—April, 1930, gave us 123 days of *rain* with light winds (line (*b*)), 16 days of *rain* with strong westerly winds (line (*c*)), 7 days when *snow* fell with light winds to an aggregate depth of 2 ft. (line (*e*)), and one day (line (*f*)) when a high westerly wind drifted a large quantity of *snow* over the top of Kilnflatt Hill until a wet *sleet* killed this drifting action.

TABLE I.—(*a*) *to* (*g*) *Summary of Catches for* 12 *months from* 1*st May*, 1929, *to* 30*th April*, 1930.
(*h*) *to* (*k*) „ „ „ 1*st May*, 1928, *to* 30*th April*, 1929.

NOTE.—The italic figures are the percentages of A's catches.

Description of Catches.	No. of Days.	Check Gauge	Western Enclosure.			Eastern Enclosure.			Close to the Wood.		In the Park.		Direction and Force of Wind.
		A	E_1	E_2	F	B	C	D	J	K	G	H	
		ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	
(*a*) *Rain* with light winds before alteration to gauges C & H.	75	14·99 *100*	14·69 *98*	14·58 *97*	14·17 *95*	15·00 *100*	15·24 *102*	15·22 *102*	15·26 *102*	14·76 *99*	15·07 *101*	14·74 *99*	From all points and not more than Force 3 to 4.
(*b*) *Rain* with light winds after alteration to gauges C and H.	123	31·39 *100*	30·25 *97*	29·77 *95*	28·27 *90*	31·17 *99*	31·56 *100*	32·17 *103*	31·28 *100*	28·32 *90*	31·43 *100*	32·03 *102*	From all points and not more than Force 4.
(*c*) *Rain* with westerly winds of 20–50 m.p.h. in winter of 1929–30.	16*	7·19 *100*	5·61 *78*	5·44 *75*	5·18 *72*	6·79 *95*	6·56 *91*	6·97 *97*	7·31 *102*	3·83 *52*	7·00 *97*	7·13 *99*	S.S.W. to W. 20 to 50 m.p.h.
(*d*) Total *rain* of the 12 months.	214	53·57 *100*	50·55 *95*	49·79 *93*	47·62 *89*	52·96 *99*	53·36 *99*	54·36 *101*	53·85 *101*	46·91 *87*	53·50 *100*	53·90 *101*	
(*e*) *Snow*, December, 1929—March, 1930, of total depth = 2 feet.	7	2·12 *100*	2·70 *127*	2·67 *126*	1·60 *75*	1·69 *79*	2·40 *118*	2·87 *135*	2·04 *96*	1·69 *79*	1·76 *83*	2·04 *96*	From all points but not more than Force 3.
(*f*) *Drifting snow* followed by wet *sleet* on 20th March, 1930.	1	0·20 *100*	1·30 *650*	1·28 *640*	0·13 *65*	0·22 *110*	0·88 *440*	1·69 *840*	0·28 *140*	0·05 *25*	0·20 *100*	0·21 *104*	W. by N. Force 4 to 5.
(*g*) Total *precipitation* of the 12 months May, 1929—April, 1930.	222	55·89 *100*	54·55 *97*	53·74 *96*	49·35 *88*	54·87 *98*	56·64 *101*	58·92 *105*	56·17 *101*	48·65 *87*	55·46 *99*	56·15 *101*	
(*h*) Total *precipitation* of the 12 months May, 1928—April, 1929.	188	44·72 *100*	42·87 *96*	42·53 *95*	40·93 *92*	44·67 *100*	45·71 *102*	45·75 *102*	— —	— —	44·31 *99*	43·85 *98*	
(*j*) Total *rain* of 12 months May, 1928—April, 1929.	185	44·23 *100*	42·21 *95*	41·88 *95*	40·45 *91*	44·24 *100*	45·11 *102*	45·12 *102*	— —	— —	43·95 *99*	43·38 *98*	
(*k*) *Rain* with westerly winds of 20–50 m.p.h. in winter of 1928–1929.	18	7·18 *100*	5·88 *82*	5·74 *80*	5·35 *74*	6·94 *97*	7·05 *98*	7·04 *98*	7·33 *102*	4·95 *69*	7·03 *98*	6·85 *95*	S.W. to W.N.W. 20 to 50 m.p.h.

* Details of the falls totalled in this line are given in Table III.

The total catch of gauge A in the 16 stormy days of the winter 1929–30 is almost exactly equal to that of the 18 stormy days in the winter of 1928–9, and it is interesting to compare the lines (*c*) and (*k*) of Table I for they bear a strong resemblance to each other, although we can see at once that 1929–30 had wilder weather than 1928–9. The three gauges on the hill-side (E_1, E_2 and F) are from 3 to 5 per cent. below their catches of the earlier winter; B, D and G are from 1 to 2 per cent. lower, but C is 7 per cent. lower which is good evidence that the 6 inches added to the height of its turf wall had oversheltered it whenever a strong wind was blowing. We also find that the new turf wall round H had improved its catch by 4 per cent. and brought it up to 99 per cent. of the check gauge A, thus giving us definite proof that its situation in the open part of the Park did induce turbulence in 1928–9 when it was a bare gauge, while J's catch for 1929–30 is practically identical with that of 1928–9 and supports the argument I advanced on p. 268 of *British Rainfall*, 1928, to the effect that a high wind carries a considerable quantity of rain *over* the top of a hill.

If we compare lines (*d*) and (*j*) which give the total catch of ***rain*** in each of the 12 month periods we find that the wet and stormy spell, November, 1929—January, 1930, which gave me 30 inches of rain, has only slightly affected the relative gross catches of all the experimental gauges except C and H; but C's higher wall has deprived it of 2½ per cent. of its 1928–9 catching power while H's new wall has improved that gauge's total catch by 2½ per cent. I therefore submit we have now obtained definite proof that a turf-wall should never be as much as 6 inches higher than the lip of the gauge, which is the height originally advised by the late Mr. Symons in his " Hints " and one which some of us have in our haste considered to be over low in exposed situations. I still adhere to the opinion I expressed on p. 262 of *British Rainfall*, 1928, that the best level for the crest of a turf wall is somewhere near the 3 inches of D's wall and in order to test this opinion I propose for 1930-31 to alter C's wall so that its crest is 2 inches above the plane of its gauge lip and to flatten its outer slope to 1 in 4 which should tend to make less interference with the stream lines of winds between 20 and 50 m.p.h., than its older slope of 1 in 3, which is what I have hitherto used for every turf wall put up for these experiments.

The catching capacity of E_1 on the hillside in every gale is still a very long way below that of D and of the check gauge A and I cannot persuade myself that it gives the true fall of rain on our hillside slope of 1 in 8.

The sharpest gale last winter was on 29th December, 1929, and blew straight up the hillside slope of 1 in 8 with the following results:—

A	E_1	E_2	F	B	C	D	J	K	G	H	
0·22	0·15	0·14	0·14	0·20	0·18	0·20	0·24	0·06	0·22	**0·23**	inches.
100	*70*	*66*	*64*	*91*	*83*	*93*	*108*	*28*	*100*	*104*	per cent.

and these percentages are not very different to those of the whole gale and heavy rainfall on 23rd November, 1928, as shown below,* save for C and H which have had altered conditions; but E_1 is still 30 per cent. below A, and 23 per cent. below D, and it is hard to believe that its catch is a true record of the rain which actually came to ground at the western enclosure.

Whenever a gale drives rain across your line of sight and against a background of trees you can always see the larger drops falling through a kind of mist which is composed of small drops and is carried along by the wind for—very often—a considerable distance; on a hillside where the wind velocity near ground level is vastly intensified this misty cloud will be re-inforced by drops of a size or two larger than those over level ground or a valley—(see the diagram of falling velocities of rain drops on p. xv of *British Rainfall,* 1925) and consequently E_1 in all probability has a more difficult task to perform than D. I propose, however, to increase the height of E_1's turf wall by 2 inches as mentioned above and to await the result in the coming winter for I think turbulence must have something to say in the matter; one can hardly believe that D on the summit of the hill could receive 23 per cent. more rain than another gauge which is but 40 yds. to windward of it, even though we find J—40 yds. to leeward of D—habitually exceeds D in every gale, from S.W. to W. by N., and in two whole gales has recorded as much as 15 per cent. more.

The behaviour of the 11 gauges during the 8 days of *snow* and sleet summarised in lines (*e*) and (*f*) of Table I is decidedly interesting and instructive. I give the details of the 8 days in Table II (p. 294) in nine double lines where the top line gives the actual catch in melted water and the lower line gives it as a percentage of A.

Line (*l*) gives the catch for 1½ inches of *snow* on 19th December when a light S. wind was blowing. A's catch—0·15 inch of water seems to represent 1½ inches of melted snow, but E_1 has 0·50 inch—E_2 and D have each got 0·42 inch; C has 0·27 inch, while H in the park has 0·22 inch, *i.e.*, the turf walls have considerably increased the catches of their gauges, due probably—as we shall see later—to the wind drifting snow flakes over each group of gauges at such a velocity as to cause considerable turbulence round the normally exposed " bare " gauges near them.

---

*

A	E_1	E_2	F	B	C	D	J	K	G	H	
1·15	0·75	0·72	0·67	1·09	1·10	1·07	1·24	0·56	1·08	1·10	inches.
100	*66*	*63*	*59*	*95*	*96*	*93*	*108*	*50*	*94*	*96*	per cent.

See p. 267, *British Rainfall,* 1928.

TABLE II.—*Catches of Snow between 19th December, 1929, and 18th March, 1930.*

NOTE.—The italic figures are the percentages of A's catches.

Date.	Depth of Snow.	Check Gauge.	Western Enclosure.			Eastern Enclosure.			Close to the Wood.		In the Park.		Direction and Force of Wind.
		A	E_1	E_2	F	B	C	D	J	K	G	H	
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	
(*l*) 19th December, 1929.	1½	0·15	0·50	0·42	0·03	0·08	0·27	0·42	0·11	0·09	0·15	0·22	S. Force 2 to 3.
		100	*333*	*280*	*20*	*53*	*180*	*280*	*73*	*60*	*100*	*147*	
(*m*) 11th January, 1930.	2	0·17	0·32	0·36	0·06	0·09	0·32	0·71	0·14	0·12	0·17	0·17	S.W. Force 2 to 4.
		100	*188*	*212*	*35*	*53*	*188*	*418*	*82*	*71*	*100*	*100*	
(*n*) 25th February, 1930.	1	0·07	0·08	0·09	0·07	0·07	0·08	0·08	0·07	0·05	0·06	0·07	S.E. Force 1 to 2.
		100	*117*	*125*	*103*	*94*	*114*	*114*	*103*	*80*	*91*	*105*	
(*o*) 15th March, 1930.	1	0·06	0·07	0·07	0·06	0·05	0·07	0·07	0·02	0·03	0·03	0·06	E. Force 2 to 3.
		100	*121*	*121*	*100*	*93*	*121*	*121*	*31*	*40*	*59*	*103*	
(*p*) 16th March, 1930.	14	1·41	1·44	1·44	1·13	1·14	1·37	1·31	1·42	1·13	1·08	1·23	N. Force 1 to 2.
		100	*102*	*102*	*80*	*81*	*98*	*93*	*101*	*80*	*77*	*87*	
(*q*) 17th March, 1930.	2½	0·21	0·22	0·22	0·19	0·20	0·22	0·22	0·22	0·22	0·22	0·23	W. by N. Force 1.
		100	*106*	*104*	*90*	*95*	*105*	*106*	*105*	*105*	*105*	*110*	
(*r*) 18th March, 1930.	1	0·05	0·07	0·07	0·06	0·06	0·07	0·06	0·06	0·05	0·05	0·06	N. Force 1 to 2.
		100	*132*	*130*	*120*	*120*	*132*	*128*	*120*	*100*	*98*	*120*	
(*s*) Total of snow-falls.	24	2·12	2·70	2·67	1·60	1·69	2·40	2·87	2·04	1·69	1·76	2·04	
		100	*127*	*126*	*75*	*79*	*118*	*135*	*96*	*79*	*83*	*96*	
Catch of a wild day with much drifting of snow followed by a wet sleet.													
(*t*) 20th March, 1930 ..		0·20	1·30	1·28	0·13	0·22	0·88	1·69	0·28	0·05	0·20	0·21	N. by W. Force 4 to 5.
		100	*650*	*640*	*65*	*110*	*440*	*840*	*140*	*25*	*94*	*104*	

Thus F on the hillside has only caught 0·03 inch; B just beyond the hill top has 0·08 inch, J which is only partially sheltered by the hill from a south wind has 0·11 inch, but in the park we find G is equal to A although it is only two-thirds of H's catch (0·22 inch). A glance at the map on p. 288 will show that the catches of F, B, J and G are roughly proportionate to their relative exposures to a south wind.

Line (*m*) gives 2 inches of snow on 11th January, 1930, when the wind was S.W. and a little stronger than on 19th December. The catches of the 4 bare gauges F, B, J and G show percentages not very unlike those of 19th December, but the Turf walled gauges on the hill (E_1, E_2, D and C) have completely changed their catching capabilities. D is now far ahead of E_1 and E_2, but as will be seen from the cross-section of the hill on p. 289—which is very nearly on the line of a S.W. wind—D is much further from the hedges of the road than are E_1 and E_2 and would presumably have more snow flakes drifting over its crater. The turf walled H in the park has *now* only the same catch as its bare neighbour G which is not surprising because the high wood screens off all movement of the air in the park at ground level when a light wind blows *across* the wood, whereas on 19th December the S. wind could blow over H and so add drifting snow flakes to its catch. Gauge C with its high turf wall is again much below its neighbour D although the quantity of snow flakes drifting over its crater cannot have been appreciably less than that over D.

The next two lines (*n*) and (*o*) are for easterly winds and show much the same percentages of A for all gauges except J, K and G, which give very much smaller ratios for *snow* in a breeze of Force 3 than for one of Force 2, whereas when precipitation is in the form of *rain* I never find any appreciable difference in their catching capabilities for such light breezes.

Lines (*p*), (*q*) and (*r*) give the catches of three consecutive days in March, 1930, when *snow* fell in considerable quantities with a light northerly wind; and line (*s*) gives the total precipitation of about 2 feet of snow that fell with winds of slight force.

But while the thick snow of 16th to 18th March was still unmelted a strong westerly wind sprang up in the morning of 20th March, and drifted much snow over the top of Kilnflatt Hill until a fall of wet sleet glazed the surface of the snow and killed the drifting action. The resulting catches—which are given in line (*t*) show extraordinary differences. K, under the lee of the wood has caught next to nothing, while D's catch is 34 times as great as K's and 13 times as great as that of F, the bare gauge on the hillside. The earth temperature was high enough to keep the copper gauges fairly warm and thus thawed a good deal of the drifted snow, for had it been below 32° F. the funnels of C, D, E_1 and E could not have contained more than a mere fraction

of the precipitation I found inside their bottles. Indeed D's funnel was practically filled up with snow before the wet sleet came on at about noon of the 20th March, but it was almost completely thawed by 3 p.m. when I was able to measure all 11 gauges in a spell of dry weather.

In any comparison of the catching powers of these experimental gauges in any kind of weather except a flat calm, it is well to ignore K, for we now have abundant proof that its shelter ratio of 1/1 entirely

HUTTON JOHN EXPERIMENTS WITH RAIN GAUGES.

TABLE III.—*Summary of catches during high westerly winds* (20–50 *m.p.h., i.e., not less than Force* 5) *in winter* 1929–30.

Date.	A	E_1	E_2	F	B	C	D	J	K	G	H	Wind and Force.
1929.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
11th Nov., 2nd period.	0·46	0·35	0·34	0·31	0·40	0·41	0·42	0·44	0·31	0·43	0·43	W.S.W.
	100	*76*	*74*	*67*	*87*	*89*	*91*	*95*	*67*	*93*	*93*	Force 6 to 8.
1st & 2nd Dec., up to 16h. on 2nd.	0·77	0·65	0·61	0·59	0·76	0·72	0·77	0·74	0·47	0·74	0·75	S. to W. by S.
	100	*84*	*80*	*77*	*99*	*94*	*100*	*97*	*61*	*97*	*98*	Force 7 to 8.
5th December	0·86	0·67	0·65	0·64	0·83	0·79	0·84	0·87	0·46	0·86	0·86	S.W.
	100	*78*	*75*	*74*	*96*	*92*	*97*	*101*	*53*	*100*	*100*	Force 5 to 7.
7th December	0·39	0·33	0·32	0·29	0·36	0·36	0·38	0·40	0·27	0·37	0·38	W.
	100	*84*	*82*	*74*	*93*	*93*	*98*	*102*	*70*	*95*	*98*	Force 5 to 6.
11th–13th Dec. 3 days' total.	0·47	0·33	0·31	0·30	0·42	0·39	0·42	0·47	0·15	0·43	0·46	W. by S. to W.
	100	*70*	*66*	*64*	*90*	*83*	*90*	*100*	*32*	*92*	*98*	Force varying 5 to 8.
25th December	1·38	1·04	1·04	1·01	1·29	1·26	1·32	1·42	0·72	1·33	1·36	S.W. to W.
	100	*75*	*75*	*73*	*93*	*91*	*96*	*103*	*53*	*97*	*99*	Force 5 to 8.
29th December	0·22	0·15	0·14	0·14	0·20	0·18	0·20	0·24	0·06	0·22	0·23	W.
	100	*70*	*66*	*64*	*91*	*83*	*93*	*108*	*28*	*100*	*104*	Force 6 to 8.
1930.												
1st January	0·79	0·59	0·59	0·54	0·76	0·70	0·76	0·83	0·36	0·76	0·78	W.
	100	*75*	*74*	*69*	*96*	*90*	*96*	*105*	*46*	*96*	*99*	Force 6 to 7.
5th January	0·42	0·32	0·31	0·29	0·38	0·38	0·40	0·43	0·21	0·41	0·42	W.
	100	*76*	*74*	*69*	*90*	*90*	*95*	*102*	*50*	*97*	*99*	Not more than Force 6.
7th January	0·73	0·62	0·60	0·55	0·70	0·70	0·75	0·75	0·48	0·74	0·76	W.S.W. to W.
	100	*85*	*82*	*76*	*96*	*96*	*103*	*103*	*66*	*101*	*104*	Force 5 to 6.
19th January	0·34	0·27	0·26	0·25	0·33	0·32	0·35	0·35	0·16	0·34	0·34	S.W.
	100	*80*	*77*	*75*	*98*	*94*	*103*	*104*	*47*	*100*	*101*	Force 6 to 7.
28th–29th Mar., *i.e.*, 2 days.	0·36	0·29	0·27	0·27	0·36	0·35	0·36	0·37	0·18	0·37	0·36	S.S.W. to
	100	*80*	*75*	*75*	*100*	*97*	*100*	*103*	*50*	*103*	*101*	W.S.W. Force 5.
Total of 16 days	7·19	5·61	5·44	5·18	6·79	6·56	6·97	7·31	3·83	7·00	7·13	
	100	*78*	*75*	*72*	*95*	*91*	*97*	*102*	*52*	*97*	*99*	

NOTE.—Gauge J has greatest catch of the 10 experimental gauges in all spells but two.

upsets its reliability as a rain recorder whenever there is any breeze at all but all the other gauges are fairly representative of degrees of shelter or exposure such as are met with in many gathering grounds.

The lines (*c*) and (*d*) in Table I show us that although F—the bare gauge on the hillside—is 28 per cent. below A (the check gauge) in gales, it is only 11 per cent. below it in the year's total for *Rain*, and these percentages are very near those for *Rain* in 1928-9 which are given in lines (*j*) and (*k*); the turf walled E_1—also on the hillside—which is 22 per cent. below A in gales is only $5\frac{1}{2}$ per cent. below in the year's total. On the hilltop we find the bare gauge B is 5 per cent. below A in gales but only 1 per cent. below in the year's total, while the turf walled D is 3 per cent. below A in gales and $1\frac{1}{2}$ per cent. *above* in the year's total for *Rain*. If we compare lines (*j*) and (*k*) in a similar manner we find ratios of the same order, although of lesser degree since the winter 1928 9 was not nearly so rough as that of 1929–30. Gauge G—in the park—is 1 per cent. lower for 1929–30 than for 1928–9 in gales and 1 per cent. higher in the year's total, a good testimonial to the efficiency of a height-distance ratio of 1 to 2. H, now that it has a turf-wall round it, is 4 per cent. better in gales and $2\frac{1}{2}$ per cent. better in its total for a year, a pretty conclusive proof that it must have felt a good deal of turbulence when it was a bare gauge in the middle of a large open space having a ratio of 1 to 4 for the h/d of the wood that lies between it and our storm quarter. H is now practically the same as A in all weathers except an easterly wind with rain when A's catch becomes upset by the 7 ft. retaining wall close to it.

The records of J in the lines (*c*) and (*k*) are practically identical and confirm the conclusion I arrived at a year ago to the effect that a gale does actually carry a considerable proportion of rain over the top of any hill. On the 29th December, 1929, with a whole gale from the west J had 108 per cent. of A, *i.e.*, the same high percentage as on 23rd November, 1928, which I quoted on page 267 of *British Rainfall*, 1928, and used for my text in the next page. I consider we can assume from the new records of H that if J had the protection of a turf wall it would give even stronger evidence in favour of my contention against the conclusions of the Bavarian investigators at the Hohenkarfen.

If we now turn to Table II where the *snow* catches are contrasted we find that turf walls help a gauge to catch the snow flakes passing over its funnel but that they cannot differentiate between a drifted flake and one that is falling quietly; consequently when ever a *snow storm* passes over an exposed situation the turf walled gauge is but a poor example of special pleader—comparable to the counsel who is compelled to qualify his argument by the words "so I am instructed"—for if we were to pin our faith upon D's record in line (*g*) of Table I we should obviously get an exaggerated notion of the year's precipitation at this particular spot in the Lake District.

If 20th March, 1930, had been a cold day in mid-winter D's funnel would have been choked by the snow flakes long before it could have

passed 1·69 inches of water into its container, and any subsequent drifting snow would have " interested it no more " (to quote Bret Harte).

This propensity of a turf wall in a snow storm is a bit of a nuisance to the student of rainfall but I contend that it should not blind us to its value as a recorder of precipitation in a gathering ground for (as a general rule in this country) a thick covering of *snow* is mostly dissipated by evaporation and does not have much effect upon the delivery of streams into a reservoir. A *bare* gauge in an exposed situation is quite unreliable in every gale with *rain* as well as in every fall of *snow* if that snow be accompanied with any breeze at all. I have a strong suspicion that the wall round E_1 is a little too low to screen that gauge from turbulence of some considerable degree in every high wind ; I propose therefore to make the following changes for the winter 1930/31. C's wall will be lowered to two inches above the lip of the gauge and its outer slope flattened to 1 in 4. E_1's wall will be raised by two inches and the outer slope left at 1 in 3 as it has been for the past two years.

E_2 will be left unchanged and a Nipher shield will be fixed round the top of gauge F in the hope that snow will visit us next winter and help us to arrive at the relative value of that type of shield.

There is some reason for thinking that a large gauge may be preferable to one of standard size on an exposed hillside. It is hoped that a 12-inch gauge may be installed in the western enclosure to test this idea.

The other eight raingauges will remain in their present surroundings and so give us ample comparison with the records we now possess.

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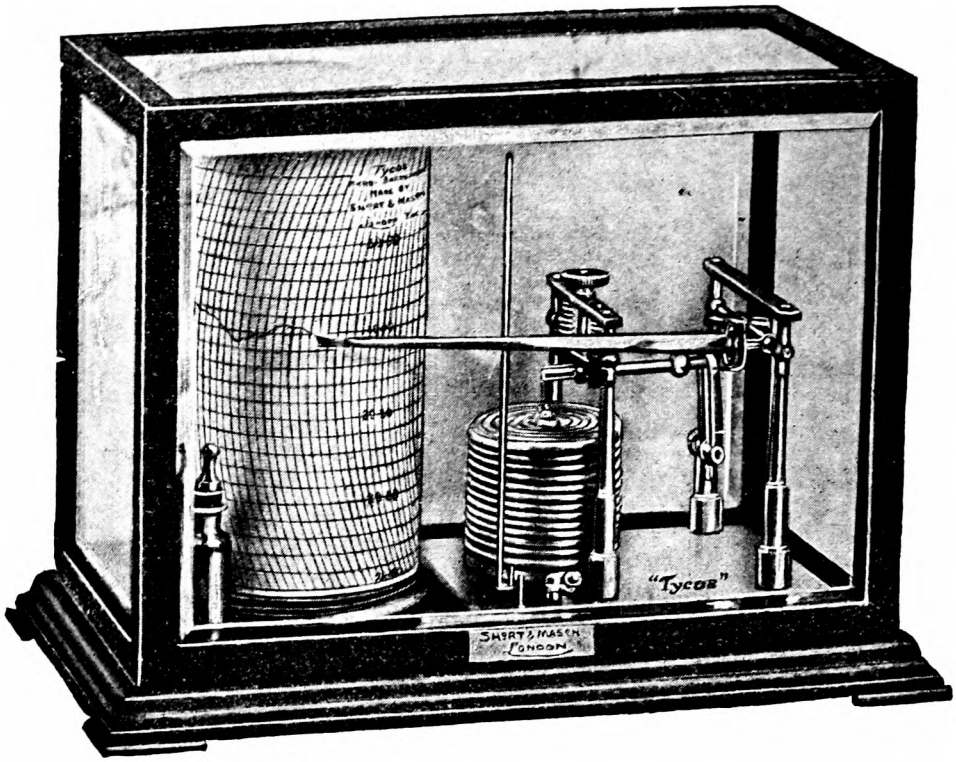

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